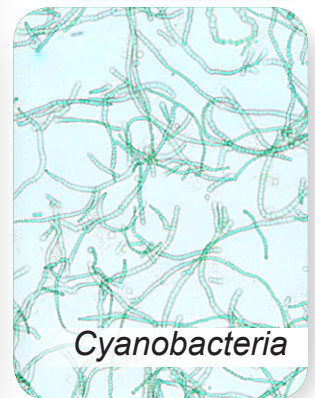
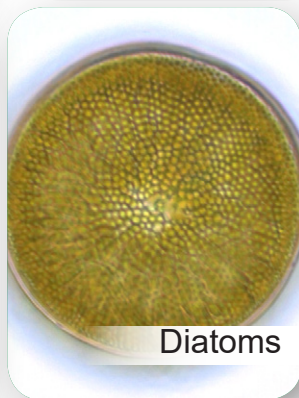
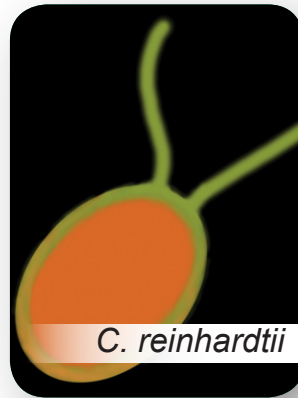


# Agrisera

Primary and secondary antibodies  
& reagents for laboratory research

2017



# Speed up your research with the most comprehensive plant and algal antibody collection on the market

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*Fanny*



*Malin*



*Jim*



*Joanna*



*Linn*

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*Magdalena*



*Erika*

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## Agrisera support and educational material

### Agrisera support

We will help you find the right product for your experiments. Comprehensive product information sheets will provide you with all necessary details. [www.agrisera.com/support](http://www.agrisera.com/support)



### Agrisera's educational resources

Over 30 years of experience and collaboration with leading plant scientists has helped us create educational resources which we share through our support and website.

Example: Western blot resource page  
[www.agrisera.com/wb](http://www.agrisera.com/wb)



### Protocol for unknown / not working antibody

- ➔ Include positive (overexpressors) and negative controls (deletion mutants)
- ➔ Max load per well: > 50 ug
- ➔ Use specific cellular fraction or extract (root, leaf, floral tissue)
- ➔ For detection of proteins of low expression, antibodies need to be purified on antigen
- ➔ Blocking 5 - 10 % milk, 1h RT
- ➔ Primary antibody dilution: 1: 500 to 1: 1000, incubation: over night at 4°C
- ➔ Detection: most sensitive detection, preferably chemiluminescence
- ➔ Overexpose area with a band of interest

More useful information about western blot trouble shooting can be found on Agrisera's poster: "Tips and tricks for antibody production and validation process".  
[www.agrisera.com/poster](http://www.agrisera.com/poster)

# Secondary antibodies

We offer a large selection of high-quality secondary antibodies - conjugated and unconjugated.

1000+ secondary antibodies at [www.agrisera.com](http://www.agrisera.com)

**Anti-** Bovine, Chicken, Donkey, Goat, Guinea pig, Hamster, Llama, Mouse, Rabbit, Rat, Sheep

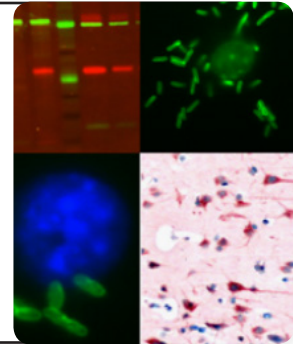
**Conjugated to:**

ALP (alkaline phosphatase)

Biotinylated

Flourescent (FITC, TRITC, DyLight® 350 - 800)

HRP (horse radish peroxidase)



## Secondary antibody selection - Most popular

Antibody name/Product name	Product number	Unit size
Goat anti-biotin, affinity purified, unconjugated	AS10 666	1 mg
Goat anti-Chicken IgY (H&L), HRP conjugated	AS09 603	1 mg
Goat anti-Mouse IgG (H&L), HRP conjugated	AS11 1772	1 mg
Goat anti-Rabbit IgG (H&L) HRP conjugated, min.cross-reactivity to bovine/human/mouse IgG/serum	AS10 668	1 mg
Goat anti-Rabbit IgG (H&L), ALP conjugated	AS09 607	1 mg
Goat anti-Rabbit IgG (H&L), DyLight® 488 conjugated	AS09 633	1 mg
Goat anti-Rabbit IgG (H&L), DyLight® 594 conjugated	AS11 1815	1 mg
Goat anti-rabbit IgG (H&L), HRP conjugated	AS09 602	1 mg
Rabbit anti-Chicken IgY (H&L), HRP conjugated	AS10 1489	1 mg
Rabbit anti-Llama IgG (H&L), HRP conjugated	AS10 1517	1 mg
Rabbit anti-Mouse IgG (H&L), ALP conjugated	AS09 629	1 mg

Free samples are available. Contact: [support@agrisera.com](mailto:support@agrisera.com)

# Tag antibodies

The following tag antibodies are available at Agrisera:

- GFP/YFP/RFP/CFP
- HA
- MBP
- S
- V5
- GST
- His
- Myc
- T7
- DYKDDDDK  
(binds to SigmaFLAG®)

With the following conjugations available:

- ALP
- Biotin
- Dylight® 488
- DyLight® 550
- DyLight® 650
- Europium 1024
- HRP
- SureLight®R-phycoerythrin

## Global antibodies - find your perfect pair

Antibody name/Product name	Product number	Unit size	Applications
AOX   AOX positive control/quantitation standard	AS04 054S	120 µl	WB
AtpB   Beta subunit of ATP synthase, chloroplastic + mitochondrial (chicken)	AS03 030	100 µl	WB, IL
AtpB   Beta subunit of ATP synthase, chloroplastic + mitochondrial (rabbit)	AS05 085	100 µl	BN-PAGE, IF, WB
Cat   Catalase (peroxisomal marker)	AS09 501	50 µl	WB
Elip   Early light induced protein	AS06 147A	100 µg	WB
FtsH1-11   ATP-dependent zinc metalloprotease FtsH1-11	AS11 1789	500 µl	BN-PAGE, WB
FtsZ1 and 2   Plant cell division protein FtsZ1 and FtsZ2	AS09 413	50 µl	WB
FtsZ2   Plant cell division protein ftsZ2	AS13 2651	50 µl	WB
GLN1 GLN2   GS1 GS2 glutamine synthetase global antibody	AS08 295	50 µl	WB
GlnA   Glutamine synthetase	AS01 018	50 µl	WB
GOGAT   Glutamine oxoglutarate aminotransferase	AS07 242	50 µl	WB
H+ATPase   Plasma membrane H+ATPase (chicken)	AS13 2671	50 µg	WB
H+ATPase   Plasma membrane H+ATPase (rabbit)	AS07 260	50 µl	IF, IL, WB
HSP70   Heat shock protein 70 cytoplasmic	AS08 371	50 µl	WB, IP
HSP70/HSC70   Heat shock protein 70/Heat shock cognate protein 70 (serum)	AS05 083	100 µl	WB, IP
HSP70/HSC70   Heat shock protein 70/Heat shock cognate protein 70, Affinity purified	AS05 083A	50 µg	IP, WB
NifH   Nitrogenase iron protein	AS01 021A	200 µg	IF, IHC, WB
PEPC   Phosphoenolpyruvate carboxylase	AS09 458	50 µg	IL, WB
PEPCK   PEP carboxykinase	AS07 241	200 µl	WB
PetC   Rieske iron-sulfur protein of Cyt b6/f complex	AS08 330	50 µl	WB
Plant Vitamin A ELISA quantitation kit	AS15 3024	200 µl	ICC
Plant Vitamin B12 ELISA quantitation kit	AS15 3025	200 µl	ICC
Proline ELISA quantitation kit	AS16 3151	50 µl	WB
PsaB   PSI-B core subunit of photosystem I	AS10 695	50 µl	WB
PsaC   PSI-C core subunit of photosystem I	AS10 939	50 µl	WB
PsbA   D1 protein of PSII, C-terminal (rabbit)	AS05 084	50 µl	WB
PsbA   D1 protein of PSII, C-terminal (chicken)	AS01 016	100 µl	WB
PsbA   D1 protein of PSII, C-terminal (affinity purified)	AS05 084A	50 µg	WB
PsbA   D1 protein of PSII, N-terminal	AS11 1786	200 µl	WB
PsbA   D1 protein of PSII, phosphorylated	AS13 2669	50 µg	WB
PsbB   CP47 protein of PSII	AS04 038	50 µl	WB

### Start with Intelligent Design

Choosing antibodies raised against peptide sequences that are conserved across a wide range of species allows detection of the same protein in plants, mosses, diatoms, cyanobacteria and other phytoplankton.

### Protein Quantitation is Practical and Powerful

Tracking or predicting maximal capacities for major photosynthetic and biosynthetic processes in mixed communities is possible with global antibodies and standards.

### Quantitative Immunoblotting

Pairing your antibody with its quantified protein standard provides both a positive control and statistical rigor - experiment to experiment & lab to lab.

Reference: Analysing photosynthetic complexes in uncharacterized species or mixed microalgal communities using global antibodies. *Physiologia Plantarum*, 2003: 119:322-327.

## Global antibodies - find your perfect pair

Antibody name/Product name	Product number	Unit size	Applications
PsbD   D2 protein of PSII	AS06 146	50 µl	WB
RbcL   Rubisco large subunit, form I	AS01 017	50 µl	WB, IL
RbcL   Rubisco large subunit, form I and form II	AS03 037	50 µl	WB, TP, IF, IG
RbcL   Rubisco large subunit, form I and form II (affinity purified)	AS03 037A	50 µg	WB
RbcL II   Rubisco large subunit, form II	AS15 2955	50 µl	WB
Rubisco ELISA quantitation kit	AS15 2994	50 µl	WB
SBPase   Sedoheptulose-1,7-bis phosphatase	AS15 2873	50 µg	WB
SPS   Sucrose phosphate synthase, global	AS03 035A	200 µg	WB
AtpB   Beta subunit of ATP synthase, mitochondrial **	AS16 3976	100 µl	IF, WB, BN-PAGE

## Protein standards - quantitation

Antibody name/Product name	Product number	Unit size	Applications
AtpB   Positive control/quantitation standard	AS03 030S	250 µl	WB
CP43'   IsiA homolog of plant CP43 positive control/quantitation standard	AS10 111S	250 µl	WB
HSP70   Positive control/quantitation standard	AS08 371S	50 µl	WB
PetC   Rieske iron-sulfur protein of Cyt b6/f complex, protein standard	AS08 330S	250 µl	WB
PsaC   Positive control/quantitation standard	AS04 042S	100 µl	WB
PsbA   D1 positive control/quantitation standard	AS01 016S	50 µg	WB
PsbD   D2 protein of PSII positive control/quantitation standard	AS09 146S	250 µl	WB
RbcL   Rubisco positive control/quantitation standard	AS01 017S	100 µl	WB
RbcL II   Rubisco form II positive control/quantitation standard	AS15 2955S	50 µg	WB
SBP   Sedoheptulose-1,7-bis phosphatase positive control/quantitation standard	AS15 2873S	50 µg	WB

## Loading control

Antibody name/Product name	Product number	Unit size	Applications
ACT   Actin	AS13 2640	50 µl	WB, IF
Actin-11	AS10 702	50 µl	WB, IF
AtpB   Beta subunit of ATP synthase, chloroplastic + mitochondrial (rabbit)	AS05 085	100 µl	BN-PAGE, IF, WB
AtpB   Beta subunit of ATP synthase, chloroplastic + mitochondrial (chicken)	AS03 030	100 µl	WB, IL
FtsZ   Prokaryotic cell division GTPase, cyanobacterial	AS07 217	200 µl	IF, IL, WB
H3   Histone H3 (polyclonal, serum)	AS10 710	50 µl	Chlp-qPCR, ICC, WB
H3   Histone H3 (affinity purified)	AS10 710A	50 µg	Chlp-qPCR, WB
H3   Histone H3 (chicken polyclonal)	AS15 2855	50 µl	WB
PsbO   33 kDa of the oxygen evolving complex (OEC) of PSII	AS06 142-33	50 µg	WB
PsbP   23 kDa protein of the oxygen evolving complex (OEC) of PSII	AS06 142-23	260 µg	WB
PsbP   23 kDa protein of the oxygen evolving complex (OEC) of PSII	AS08 305	100 µl	WB
RA   Rubisco activase	AS10 700	50 µl	WB
RbcL   Rubisco large subunit, form I	AS01 017	50 µl	WB, IL
RbcL   Rubisco large subunit, form I and form II (50 µl)	AS03 037	50 µl	WB, TP, IF, IG
RPN6   26S proteasome non-ATPase regulatory subunit 9	AS15 2832A	50 µg	WB
Tubulin alpha chain	AS10 680	100 µl	IF, WB
Tubulin beta chain	AS10 681	100 µg	IF, WB
AtpB   Beta subunit of ATP synthase, mitochondrial **	AS16 3976	100 µl	IF, WB, BN-PAGE
RPN6   26S proteasome non-ATPase regulatory subunit 9 (A.thaliana) **	AS15 2845	50 µg	WB



## Cell wall

Antibody name/Product name	Product number	Unit size	Applications
Acetylated glucomannan   (CCRC-M170)	AS16 3226	5 ml	ELISA, IF
Arabinogalactan-2   (CCRC-M133)	AS16 3115	5 ml	ELISA, IHC, IF
Arabinogalactan-3   (CCRC-M85)	AS16 3133	5 ml	ELISA, IHC, IF
Arabinogalactan-4   (CCRC-M78)	AS16 3231	5 ml	ELISA, IHC, IF
CesA4 (IRX5)   Cellulose synthase A catalytic subunit 4 [UDP-forming]	AS12 2582	50 µl	WB
CesA7 (IRX3)   Cellulose synthase A catalytic subunit 7 [UDP-forming]	AS12 2581	50 µl	WB
CesA8 (IRX1)   Cellulose synthase A catalytic subunit 8 [UDP-forming]	AS12 2580	50 µl	WB, IF
Fucosylated xyloglucan   (CCRC-M1)	AS16 3136	5 ml	ELISA, IHC, IF
Galactomannan-1   (CCRC-M70)	AS16 3116	5 ml	ELISA, IHC, IF
Galactomannan-2   (CCRC-M174)	AS16 3232	5 ml	ELISA, IHC, IF
Homogalacturonan-1   (CCRC-M38)	AS16 3117	5 ml	ELISA, IHC, IF
Linseed mucilage   (CCRC-M141)	AS16 4038	100 µg	ELISA, IHC, IF
Non-fucosylated xyloglucan-1   (CCRC-M101)	AS16 3230	5 ml	ELISA, IHC, IF
Non-fucosylated xyloglucan-2   (CCRC-M88)	AS16 3233	5 ml	ELISA, IHC, IF
Non-fucosylated xyloglucan-3   (CCRC-M100)	AS16 3234	5 ml	ELISA, IHC, IF
Non-fucosylated xyloglucan-4   (CCRC-M58)	AS16 3235	5 ml	ELISA, IHC, IF
Non-fucosylated xyloglucan-5   (CCRC-M48)	AS16 3221	5 ml	ELISA, IHC, IF
Rhamnogalacturonan-I / Arabinogalactan   (CCRC-M7)	AS16 3225	5 ml	ELISA, IHC, IF
Rhamnogalacturonan-I backbone   (CCRC-M35)	AS16 3224	5 ml	ELISA, IHC, IF
Rhamnogalacturonan-Ia   (CCRC-M2)	AS16 3134	5 ml	ELISA, IHC, IF
Rhamnogalacturonan-Ib   (CCRC-M61)	AS16 3237	5 ml	ELISA, IHC, IF
Rhamnogalacturonan-Ic   (CCRC-M23)	AS16 3236	5 ml	ELISA, IHC, IF
XTH-Xet   XET5 Xyloglucan xyloglucosyl transferase	AS08 319	100 µl	WB, ELISA
Xylan-1 / Xyloglucan   (CCRC-M108)	AS16 3135	5 ml	ELISA, IHC, IF
Xylan-3   (CCRC-M114)	AS16 3227	5 ml	ELISA, IHC, IF
Xylan-4   (CCRC-M154)	AS16 3238	5 ml	ELISA, IHC, IF
Xylan-5   (CCRC-M144)	AS16 3239	5 ml	ELISA, IHC, IF
Xylan-6   (CCRC-M138)	AS16 3229	5 ml	ELISA, IHC, IF
Xylan-7   (CCRC-M149)	AS16 3228	5 ml	ELISA, IHC, IF
Hardwood lignin (birch) **	AS16 3975	50 µg	WB
Softwood lignin (spruce) **	AS16 3974	50 µg	WB

## Compartment markers - Cell wall

Antibody name/Product name	Product number	Unit size	Applications
CesA4 (IRX5)   Cellulose synthase A catalytic subunit 4 [UDP-forming]	AS12 2582	50 µl	WB
CesA7 (IRX3)   Cellulose synthase A catalytic subunit 7 [UDP-forming]	AS12 2581	50 µl	WB
CesA8 (IRX1)   Cellulose synthase A catalytic subunit 8 [UDP-forming]	AS12 2580	50 µl	WB, IF
XTH-Xet   XET5 Xyloglucan xyloglucosyl transferase	AS08 319	100 µl	WB ELISA
Cel9B   Endoglucanase 9B **	AS15 2953	0.5 mg	WB

## Compartment markers - Chloroplast

Antibody name/Product name	Product number	Unit size	Applications
AO   Apoplastic ascorbate oxidase	AS06 184	100 µl	WB
CRD1   Cyanobacterial homolog of plant CHL27 cyclase	AS06 122	50 µl	WB
Cyt c6   Thylakoid lumen cytochrome c6 protein	AS06 202	200 µl	WB
PC   Plastocyanin	AS06 141	50 µl	IG, WB
PGL35   Plastoglobulin 35; FIB1a; FBN1a	AS06 116	200 µl	WB, ICC



## Compartment markers - Chloroplast

Antibody name/Product name	Product number	Unit size	Applications
PRK ribulose-5-P-kinase   Phosphoribulokinase	AS07 257	50 µg	WB
PsbA   D1 protein of PSII, C-terminal	AS05 084	50 µl	WB
PsbA   D1 protein of PSII, C-terminal (affinity purified)	AS05 084A	50 µg	WB
PsbA   D1 protein of PSII, phosphorylated	AS13 2669	50 µg	WB
RbcL   Rubisco large subunit, form I and form II (affinity purified)	AS03 037A	50 µg	WB
RbcL   Rubisco large subunit, form I and form II	AS03 037	50 µl	WB, TP, IF, IG
Tic40   Inner envelope membrane translocon complex protein (chloroplast)	AS10 709	50 µl	WB, IF
Toc75   Chloroplast outer envelope membrane translocon complex OEP75 protein	AS06 150	200 µl	WB

## Compartment markers - Cytoplasm

Antibody name/Product name	Product number	Unit size	Applications
ACT   Actin (41.6   45 kDa)	AS13 2640	50 µl	WB, IF
cFBPase   Cytosolic fructose-1,6-bisphosphatase (cytoplasm marker in photosynthetic tissues) (45   37 kDa)	AS04 043	100 µl	WB
NAB1   Nucleic acid binding protein 1, Chlamydomonas (26.5   26 kDa)	AS08 333	50 µl	WB, IP
RbcL   Rubisco large subunit, form I and form II (affinity purified) (52.7 kDa ( <i>Arabidopsis</i> ), 52.5 kDa ( <i>cyanobact.</i> ), 52.3 ( <i>Chlamydomonas</i> ))	AS03 037A	50 µg	WB
RbcL   Rubisco large subunit, form I and form II (kDa same as above)	AS03 037	50 µl	WB, TP, IF, IG
RBP40   38 kDa RNA-binding protein (42   40 kDa)	AS14 2820	50 µl	WB, IP
SPS   Sucrose phosphate synthase, maize (120   ~130 kDa for <i>Zea mays</i> )	AS06 185	50 µl	WB, IL
SPS   Sucrose phosphate synthase, global (120   120-130 kDa)	AS03 035A	200 µg	WB
UGPase   UDP-glucose pyrophosphorylase (cytoplasm marker) (51.6 kDa)	AS05 086	50 µl	IL, WB
UGPase   UDP-glucose pyrophosphorylase (cytoplasm marker) ( <i>Hordeum vulgare</i> ) (52 kDa)	AS14 2813	50 µl	WB

## Compartment markers - Endoplasmic reticulum

Antibody name/Product name	Product number	Unit size	Applications
BiP   Lumenal-binding protein (chicken)	AS09 614	100 µg	WB, IF
BiP   Lumenal-binding protein (goat)	AS09 615	100 µg	WB
BiP   Lumenal-binding protein (rabbit)	AS09 481	50 µg	ELISA, IF, IG, WB
H+ATPase   Plasma membrane H+ATPase (chicken)	AS13 2671	50 µg	WB
H+ATPase   Plasma membrane H+ATPase (rabbit)	AS07 260	50 µl	IF, IL, WB
HDEL   Endoplasmic reticulum retention signal	AS10 683	100 µg	WB, IF, IG
KDEL   Endoplasmic reticulum retention signal	AS13 2665	50 µg	WB, IHC
KDEL   Endoplasmic reticulum retention signal, conjugated	see below	200 µg	WB, IHC

### KDEL antibody is available with the following direct conjugations

ALP (AS15 3011) - APC (AS15 3013) - ATTO 390 (AS15 3003) - ATTO488 (AS15 3004) - ATTO565 (AS15 3005) - ATTO 594 (AS15 3006) - ATTO 633 (AS15 3007) - ATTO 655 (AS15 3008) - ATTO 680 (AS15 3009) - ATTO 700 (AS15 3010) - Biotin (AS15 3014) FITC (AS15 3015) - HRP (AS15 3016) - Streptavidin (AS15 3017)

SMT1   Sterol methyltransferase 1	AS07 266	200 µg	IL, WB
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## Compartment markers - Golgi

Antibody name/Product name	Product number	Unit size	Applications
ARF1   ADP-ribosylation factor 1	AS08 325	50 µl	IF, IG, WB
Sec21p   Gamma subunit, COP vesicles	AS08 327	200 µl	WB, IF

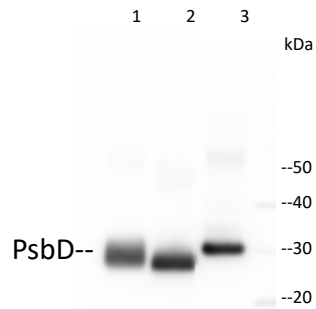
## Compartment markers - Mitochondria

Antibody name/Product name	Product number	Unit size	Applications
AOX1   Alternative oxidase 1	AS06 152	100 µl	WB
AOX1/2   Plant alternative oxidase 1 and 2	AS04 054	50 µl	WB, IL
COXII   Cytochrome oxidase subunit II	AS04 053A	50 µg	BN-PAGE, WB



## Chloroplast thylakoid membrane

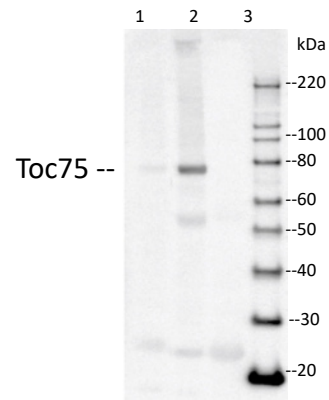
- 1 *Nicotiana* total leaf
- 2 *Nicotiana* chloroplast
- 3 PsbD recombinant standard (AS09 146S)



PsbD enrichment in chloroplast fraction (lane 2) relative to total leaf protein (lane 1).

## Chloroplast outer membrane

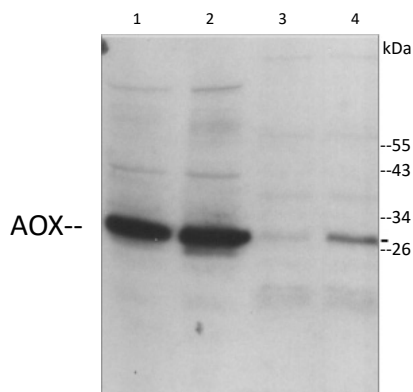
- 1 *Arabidopsis* total leaf
- 2 *Arabidopsis* chloroplast envelope
- 3 *Arabidopsis* thylakoids



Toc75 enrichment in chloroplast envelope fraction (lane 2) relative to total leaf (lane 1) and thylakoid enriched fractions (lane 3).

## Mitochondrion

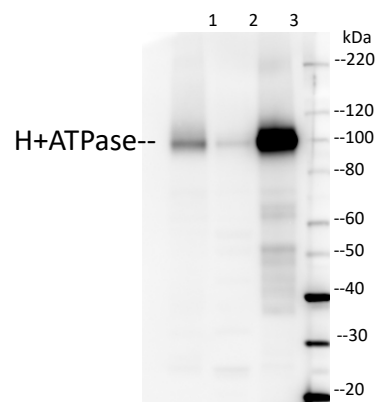
- 1 *Arabidopsis* mitochondria (WT)
  - 2 *Arabidopsis* mitochondria (AOX OE\*)
  - 3 *Arabidopsis* total leaf (WT)
  - 4 *Arabidopsis* total leaf (AOX OE\*)
- \* OE overexpressing line



AOX enrichment in mitochondrial fraction (lanes 1,2) relative to total leaf (lanes 3,4).

## Plasma membrane

- 1 *Nicotiana* total leaf
- 2 *Nicotiana* chloroplast
- 3 *Nicotiana* plasma membrane enriched fraction



H<sup>+</sup> ATPase enrichment in plasma membrane fraction (lane 3) relative to total leaf (lanes 1) and chloroplast (lane 2).

## Compartment markers - Mitochondria

Antibody name/Product name	Product number	Unit size	Applications
COXIIb   Cytochrome oxidase subunit II b	AS06 151	50 µl	WB
GDC-H   H protein of glycine decarboxylase complex (GDC)	AS05 074	50 µg	WB
IDH   Isocitrate dehydrogenase	AS06 203A	50 µg	WB
SHMT   Serine hydroxymethyltransferase	AS05 075	200 µl	WB
VDAC1   Voltage-dependent anion-selective channel protein 1	AS07 212	50 µg	BN-PAGE, IL, WB

## Compartment markers - Nuclear marker

Antibody name/Product name	Product number	Unit size	Applications
H3   Histone H3 (rabbit)	AS10 710	50 µl	ChIp-qPCR, ICC, WB
H3   Histone H3 (rabbit, affinity purified)	AS10 710A	50 µg	ChIp-qPCR, WB
H3   Histone H3 (chicken)	AS15 2855	50 µl	WB
SUN1,2 (nuclear envelope protein) ( <i>Arabidopsis thaliana</i> )	AS15 2856	50 µg	WB
SUN1,2 (nuclear envelope protein) (other species) **	AS15 2857	50 µl	WB, ICC
COIL   Coilin (Cajal bodies protein) **	AS16 3842	50 µl	WB, ICC

## Compartment markers - Peroxisomal

Antibody name/Product name	Product number	Unit size	Applications
Cat   Catalase (peroxisomal marker)	AS09 501	50 µl	WB
DEG15   Endopeptidase (peroxisomal marker)	AS10 711	100 µg	WB
GOX   Glycolate oxidase 1,2,3	AS14 2772	50 µg	WB
HPR   Hydroxypyruvate reductase (peroxisomal matrix marker)	AS11 1797	50 µl	WB
Pex14p   Peroxisomal marker	AS08 372	50 µg	WB

## Compartment markers - Plasma membrane

Antibody name/Product name	Product number	Unit size	Applications
H+ATPase   Plasma membrane H+ATPase (chicken)	AS13 2671	50 µg	WB
H+ATPase   Plasma membrane H+ATPase (rabbit)	AS07 260	50 µl	IF, IL, WB

## Compartment markers - Plastidial

Antibody name/Product name	Product number	Unit size	Applications
GOGAT   Glutamine oxoglutarate aminotransferase	AS07 242	50 µl	WB

## Compartment markers - Vacuolar

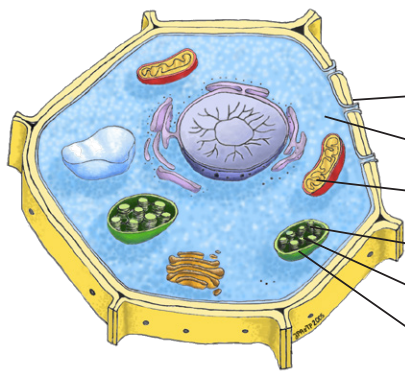
Antibody name/Product name	Product number	Unit size	Applications
PR-2   GLU I   Class I beta-1,3-glucanase	AS07 208	2 mg	WB, IL
PR-3 / CHN   Class I chitinase	AS07 207	2 mg	IP, IL, WB
V-ATPase   Epsilon subunit of tonoplast H+ATPase	AS07 213	50 µl	IHC, WB
V-ATPase   Epsilon subunit of tonoplast H+ATPase	AS09 577	300 µl	WB
V-ATPase   Epsilon subunit of tonoplast H+ATPase (affinity purified)	AS09 577A	200 µg	WB

### Need confirmation of subcellular fraction purity?

The Plant Cell Compartment Antibody Marker Set is a collection of antibodies which allows estimation of fraction purity for a range of plant species including *Arabidopsis thaliana*. Some antibodies are accompanied by a protein standard which can be used as a positive control and for quantitation.

**Marker antibodies** can be either purchased separately or at a discounted rate as a set of 5 or 10 antibodies of your choice. [www.agrisera.com/markers](http://www.agrisera.com/markers)





## Antibodies toward compartment/fraction marker proteins

Fraction*	Antibody marker**	Positive control & calibrated standard	Species range
Plasma membrane	H+ATPase (AS07 260)	n.a.	Plants; Algae
Cytosol	PEPC (PEP carboxylase) (AS09 458)	PEPC standard (AS09 458S)	Plants; Algae; Cyanobacteria
Mitochondrion	Aox I/II (alternative oxidase) (AS04 054)	AOX 1/2 standard (AS04 054S)	Plants; Algae; Bacteria
Chloroplast – thylakoid	PsbD (AS06 146)	PsbD standard (AS09 146S)	Plants; Algae; Cyanobacteria
Chloroplast – stroma	RbcL, rubisco large subunit (AS03 037)	RbcL standard (AS01 017S)	Plants; Algae; Cyanobacteria
Chloroplast – outer membrane	Toc75 (AS06 150)	n.a.	Monocots; Dicots

\*Antibody markers are also available for: ER, golgi, nucleus, peroxisome, vacuole.

\*\*Subset of available antibody markers. Find a complete list at [www.agrisera.com/markers](http://www.agrisera.com/markers)

## Bioenergetics

Antibody name/Product name	Product number	Unit size	Applications
AtpA   Alpha subunit of ATP synthase, chloroplastic	AS08 304	100 µl	IP, WB
ATPase   ATP synthase, whole enzyme	AS08 370	100 µl	WB
AtpB   Beta subunit of ATP synthase (rice)	AS16 3834	100 µl	WB
AtpB   Beta subunit of ATP synthase, chloroplastic + mitochondrial	AS03 030	100 µl	WB, IL
AtpB   Beta subunit of ATP synthase, chloroplastic + mitochondrial	AS05 085	100 µl	BN-PAGE, IF, WB
AtpC   Gamma subunit of ATP synthase, chloroplastic	AS08 312	100 µl	WB
AtpD   CF1 delta subunit of ATP synthase, Affinity purified	AS10 1590	100 µl	WB
AtpD   CF1 delta subunit of ATP synthase, Serum	AS10 1591	100 µl	WB
AtpE   Epsilon subunit of ATP synthase	AS10 1586	100 µl	WB
AtpF   CF0I subunit of ATP synthase	AS10 1604	100 µl	WB
AtpG   ATPsynthase subunit II b', chloroplastic	AS09 457	100 µl	WB
AtpH   ATP synthase subunit c, chloroplastic	AS05 071	200 µl	WB
AtpH   ATP synthase subunit c, chloroplastic	AS09 591	100 µl	WB
AtpI   CFoIV subunit of ATP synthase	AS10 1583	100 µl	WB
Ca <sup>2+</sup> -ATPase   Calmodulin-stimulated calcium-ATPase	AS09 486	100 µl	WB, ELISA
NDPK   Nucleoside diphosphate kinase	AS08 302	50 µl	WB
PAB   Protein in chloroplast atpase biogenesis	AS15 2833	50 µl	WB
AtpB   Beta subunit of ATP synthase, mitochondrial **	AS16 3976	100 µl	IF, WB, BN-PAGE

## Carbohydrates

Antibody name/Product name	Product number	Unit size	Applications
3-hydroxybutyrate dehydrogenase	AS09 562	10 mg	WB, ELISA, IF, IHC
3-hydroxybutyrate dehydrogenase, Affinity purified	AS09 564	1 mg	WB, ELISA, IF, IHC
3-hydroxybutyrate dehydrogenase, Biotin conjugated	AS09 563	1 ml	WB, ELISA, IF, IHC
ACC synthase 7   1-aminocyclopropane-1-carboxylate synthase 7	AS14 2774	100 µg	WB
ACCase subunit beta   Acetyl-coenzyme A, carboxylase (subunit beta)	AS15 2880	100 µl	WB
ADGP   ADP-glucose pyrophosphorylase	AS11 1739	50 µl	WB
AKIN β gamma	AS09 463	50 µg	WB
AKIN10   SNF1-related protein kinase catalytic subunit alpha KIN10	AS10 919	2x50 µg	WB
AKIN11   SNF1-related protein kinase catalytic subunit alpha KIN11	AS10 920	50 µg	WB
AKINB2   SNF1-related protein kinase regulatory subunit beta-2	AS09 462	200 µg	WB
AKINB3   SNF1-related protein kinase regulatory subunit beta-3	AS15 2859	50 µg	WB
ALD   Fructose-1,6 bisphosphate aldolase	AS08 294	100 µl	WB
Alpha-mannosidase	AS09 452	10 mg	WB, ELISA, IF, IHC



## Carbohydrates

Antibody name/Product name	Product number	Unit size	Applications
Alpha-mannosidase, Affinity purified	AS09 650	1 mg	WB, ELISA,IF, IHC
Alpha-mannosidase, Biotin conjugated	AS09 453	1 ml	WB, ELISA,IF, IHC
AMY   Alpha-amylase	AS10 712	100 µl	WB
BAM   Beta-amylase, Biotin conjugated	AS09 380	1 ml	WB, ELISA, IF, IHC
BAM1   Beta amylase 1 (chloroplastic)	AS15 2895	50 µl	WB
beta-1,4-glucosidase (hyperthermophilic enzyme)	AS15 3093	50 µl	WB
Biotin carboxyl carrier subunit of chloroplast ACCase	AS15 2881	100 µl	WB
cFBPase   Cytosolic fructose-1,6-bisphosphatase (cytoplasm marker in photosynthetic tissues)	AS04 043	100 µl	WB
endo-beta-1,4 xylanase (hyperthermophilic enzyme)	AS15 3087	50 µl	WB
Enolase	AS10 651	200 µl	WB
Exo1   Exoglucanase isoenzyme 1	AS08 322	100 µl	WB, ELISA
FBA   Fructose-bisphosphate aldolase class 2	AS13 2731	50 µl	WB
FnCel5A   Endo-beta-1,4 glucanase (hyperthermophilic enzyme)	AS15 3094	50 µl	WB
Fucose	AS07 268	50 µg	WB, IL
GAPC1/2   Glyceraldehyde-3-phosphate dehydrogenase	AS15 2894	50 µg	WB
GAPC2   Glyceraldehyde-3-phosphate dehydrogenase	AS13 2727	50 µl	WB
GLUC   Beta-glucosidase	AS09 449	10 mg	WB, ELISA,IF, IHC
GLUC   Beta-glucosidase, Affinity purified	AS09 451	1 mg	WB, ELISA,IF, IHC
GLUC   Beta-glucosidase, Biotin conjugated	AS09 450	1 ml	WB, ELISA,IF, IHC
Glucan endo-1,3-beta-glucosidase	AS15 2890	100 µl	WB
GLYR   Glyoxylate reductase	AS09 542	10 mg	WB, ELISA, IF, IHC
GLYR   Glyoxylate reductase, Affinity purified	AS09 544	1 mg	WB, ELISA,IF, IHC
GLYR   Glyoxylate reductase, Biotin conjugated	AS09 543	1 ml	WB, ELISA,IF, IHC
HXK1   Hexokinase 1	AS12 2601	50 µl	WB
ICL   Isocitrate lyase	AS09 500	100 µl	WB, ELISA
MDH   Malate dehydrogenase (cytoplasmic)	AS13 2706	50 µl	WB
MDH2   Malate dehydrogenase 2 (mitochondrial)	AS15 3064	50 µl	WB, IP
MDH4   Malate dehydrogenase 4 (cytoplasmic)	AS15 3065	50 µl	WB
Oxalate oxidase	AS09 518	1 mg	WB, ELISA,IF, IHC
Oxalate oxidase, Biotin conjugated	AS09 519	1 ml	WB, ELISA,IF, IHC
PEPC   Phosphoenolpyruvate carboxylase	AS09 458	50 µg	IL, WB
PGM1   Phosphoglucomutase (cytoplasmic 1)	AS15 3066	50 µl	WB
PPDK   Pyruvate orthophosphate dikinase	AS13 2647	20 µg	WB
Ramy 3D   Alpha-amylase isozyme 3D	AS10 716	100 µg	WB
SBPase   Sedoheptulose-1,7-bis phosphatase	AS15 2873	50 µg	WB
SPS   Sucrose phosphate synthase (maize)	AS06 185	50 µl	WB, IL
SPS   Sucrose phosphate synthase, global	AS03 035A	200 µg	WB
SPSA1   Sucrose phosphate synthase isoform A1	AS15 2995	50 µg	WB
SPSC   Sucrose phosphate synthase isoform C	AS15 2997	50 µl	WB
SUS1   Sucrose synthase 1	AS15 2830	50 µl	WB
TPS1   Trehalose-6-phosphate synthase 1	AS12 2635	50 µl	WB
UAGPase   UDP-GlcNAc pyrophosphorylase	AS14 2829	50 µl	WB
UGPase   UDP-glucose pyrophosphorylase (cytoplasm marker)	AS05 086	50 µl	IL, WB
UGPase   UDP-glucose pyrophosphorylase (cytoplasm marker) ( <i>H. vulgare</i> )	AS14 2813	50 µl	WB
Xylose	AS07 267	50 µg	WB
ARP4   Actin-related protein 4 **	AS14 2817	50 µg	WB
ATUAP1   UDP-N-acetylglucosamine diphosphorylase 2 **	AS15 2829	50 µl	WB
BAM3   Beta amylase 3 **	AS15 2896	µl	WB



## Carbohydrates

Antibody name/Product name	Product number	Unit size	Applications
FUM   Fumarase **	AS16 3966	50 µl	WB
HXK1   Hexokinase 1 (Chlamydomonas) **	AS16 4083	50 µl	WB
PEPC1   Phosphoenolpyruvate carboxylase isoform 1 **	AS15 2993	50 µg	WB, IL
RIN4   RPM1-interacting protein 4 **	AS15 2893	100 µl	WB
SPSA2   Sucrose phosphate synthase isoform A2 **	AS15 2996	µl	WB
Sucrose synthase 4 **	AS11 1796	100 µg	WB
SUS4   Sucrose synthase 4 **	AS13 2748	1 ml	WB

## Developmental biology - Circadian clock

Antibody name/Product name	Product number	Unit size	Applications
CCA1   Circadian clock associated 1	AS13 2659	50 µg	WB
DET1   Regulator of the proteasomal degradation of LHY	AS15 3082	50 µl	WB
GI   Gigantea	AS12 1864A	50 µg	WB
LHY   Late elongated hypocotyl	AS13 2661	50 µg	WB
ZTL (ADO1)   Zeitlupe (Adagio protein 1)	AS13 2662	50 µg	WB
CHE   CCA1 hiking expedition **	AS13 2660	200 µg	WB
LUX   Transcription factor LUX **	AS16 4106	50 µg	WB
TOC1   Timing of CAB expression 1 **	AS13 2646	200 µg	WB
TOC1   Timing of CAB expression 1 (other species) **	AS14 2823	2x50 µg	WB

## Developmental biology - Cytoskeleton

Antibody name/Product name	Product number	Unit size	Applications
ACT   Actin	AS13 2640	50 µl	WB, IF
ACT   Actin (monoclonal)	AS16 3141	100 µg	IHC, WB
ACT 1,3,4,12   Actin 1, 3, 4, 12	AS16 3139	100 µg	WB
ACT 2,8,11   Actin 2, 8, 11	AS16 3140	100 µg	IHC, WB
Actin-11	AS10 702	50 µl	WB, IF
FtsZ   Prokaryotic cell division GTPase (cyanobacterial)	AS07 217	200 µl	IF, IL, WB
FtsZ1 and 2   Plant cell division protein FtsZ1 and FtsZ2	AS09 413	50 µl	WB
FtsZ2   Plant cell division protein ftsZ2	AS13 2651	50 µl	WB
MPK4   Mitogen-activated protein kinase 4	AS12 2107	200 µg	WB
PRO1   Profilin-1	AS16 3210	100 µg	IHC, WB
PRO1,2   Profilin-1,2	AS16 3142	100 µg	IHC, WB
PRO4,5   Profilin-4,5	AS16 3143	100 µg	IHC, WB
Tubulin alpha chain	AS10 680	100 µl	IF, WB
Tubulin beta chain	AS10 681	100 µg	IF, WB

## Developmental biology - Flowering

Antibody name/Product name	Product number	Unit size	Applications
FT/TSF   Flowering locus T and twin sister of FT	AS06 198	50 µg	WB
GI   Gigantea	AS12 1864A	50 µg	WB
SOC1   Suppressor of constans overexpression 1	AS12 1856	50 µg	WB
ZTL (ADO1)   Zeitlupe (Adagio protein 1)	AS13 2662	50 µg	WB
CO   Constans (goat) **	AS16 3160	50 µg	WB
CO   Constans (chicken) **	AS16 3958	50 µg	WB
LUX   Transcription factor LUX **	AS16 4106	50 µg	WB
TOC1   Timing of CAB expression 1 **	AS13 2646	200 µg	WB
TOC1   Timing of CAB expression 1 (other species) **	AS14 2823	2x50 µg	WB

## Developmental biology - Ion transport

Antibody name/Product name	Product number	Unit size	Applications
AKT1   Potassium channel AKT1	AS09 516	200 µg	WB
AtpB   Beta subunit of ATP synthase, chloroplastic + mitochondrial (chicken)	AS03 030	100 µl	WB, IL
AtpB   Beta subunit of ATP synthase, chloroplastic + mitochondrial (rabbit)	AS05 085	100 µl	BN-PAGE, IF, WB
Ca <sup>2+</sup> -ATPase   Calmodulin-stimulated calcium-ATPase	AS09 486	100 µl	WB, ELISA
FER   Ferritin (plant)	AS10 674	200 µl	WB
Fer1   Ferritin 1 (pre-apoferritin)	AS06 126	200 µl	WB
Fer2   Ferritin 2	AS06 196	200 µl	WB
Ferritin 1-2 (plant)	AS15 2898	50 µg	WB
FOX1   Plasma membrane ferroxidase FLP1	AS06 120	200 µl	WB, IF
KC1   Potassium channel KAT3	AS09 515	200 µg	WB
KrP   Kelch repeat-containing protein / galactose oxidase (At3g07720)	AS14 2764	50 µl	WB
Na <sup>+</sup> /H <sup>+</sup> antiporter, sodium/hydrogen exchanger	AS09 484	50 µl	ELISA, WB
Pht1-1/2   Root phosphate transporter isoform 1-1 and 1-2	AS08 321	100 µl	WB, ELISA
Pht1-6   Root phosphate transporter isoform 1-6	AS08 320	100 µl	WB, ELISA
TKL1   Transketolase (chloroplastic)	AS15 2903	50 µl	WB, IP
Tom 9   Mitochondrial import receptor subunit TOM9	AS15 2902	50 µl	WB
V-ATPase   Epsilon subunit of tonoplast H <sup>+</sup> ATPase	AS07 213	50 µl	IHC, WB
V-ATPase   Epsilon subunit of tonoplast H <sup>+</sup> ATPase	AS09 577	300 µl	WB
V-ATPase   Epsilon subunit of tonoplast H <sup>+</sup> ATPase (affinity purified)	AS09 577A	200 µg	WB
VDAC1   Voltage-dependent anion-selective channel protein 1	AS07 212	50 µg	BN-PAGE, IL, WB
Zip7   Zinc transporter protein Zip7	AS08 318	100 µl	WB, ELISA
AtpB   Beta subunit of ATP synthase, mitochondrial	AS16 3976	100 µl	IF, WB, BN-PAGE
Kelch repeat protein ( <i>Chlamydomonas</i> ) **	AS14 2761	µl	WB

## Developmental biology - Lipid metabolism

Antibody name/Product name	Product number	Unit size	Applications
Alkaline lipase (glyoxysomal lipase)	AS10 698	100 µl	WB
CrPDAT1   Phospholipid: diacylglycerol acyltransferase	AS12 1875	350 µl	WB
EDS1   Enhanced disease susceptibility 1	AS13 2751	50 µg	WB
LOX   Lipoxygenase	AS06 128	50 µl	WB
LOX   Lipoxygenase (affinity purified)	AS06 128A	50 µg	WB
LOX2   Lipoxygenase 2	AS08 340	50 µg	WB, ELISA
LOX-C   Lipoxygenase (chloroplastic)	AS07 258	100 µl	WB
Plastid acyl-ACP desaturase	AS13 2668	50 µl	WB
PLD   Phospholipase D	AS09 556	10 mg	WB, ELISA, IF, IHC
PLD   Phospholipase D (affinity purified)	AS09 558	1 mg	WB, ELISA, IF, IHC
PLDA1/2   Phospholipase D alpha 1/2	AS12 2364	50 µl	WB, IL

## Developmental biology - Photomorphogenesis

Antibody name/Product name	Product number	Unit size	Applications
FT/TSF   Flowering locus T and twin sister of FT	AS06 198	50 µg	WB
HY5   Protein long hypocotyl 5	AS12 1867	50 µg	WB
Melatonin (rabbit)	AS09 596	100 µl	ELISA
Melatonin (rat)	AS09 597	100 µl	ELISA
PHOT1   Phototropin-1	AS10 720	100 µl	WB
PHOT2   Phototropin-2	AS10 721	100 µl	WB
PhyA   Phytochrome A	AS07 220	200 µg	WB
PIF4   Phytochrome interacting factor 4 (goat)	AS16 3955	50 µg	WB



## Developmental biology - Photomorphogenesis

Antibody name/Product name	Product #	Unit size	Applications
PIF5   Phytochrome interacting factor 5	AS12 2112	50 µg	WB
PLD   Phospholipase D	AS09 556	10 mg	WB, ELISA,IF, IHC
PLD   Phospholipase D (affinity purified)	AS09 558	1 mg	WB, ELISA,IF, IHC
RGA   DELLA protein RGA	AS11 1630	50 µg	WB
VRN2   Vernalization protein 2	AS08 341	100 µg	WB, ELISA
CRY1   Cryptochrome 1 **	AS16 3933	200 µg	WB
CRY2   Cryptochrome 2 **	AS16 3934	200 µg	WB
PhyB   Phytochrome B (rabbit) **	AS16 3158	200 µg	WB
PhyB   Phytochrome B (goat) **	AS16 3956	200 µg	WB
PIF3   Phytochrome interacting factor 3 (rabbit) **	AS16 3156	50 µg	WB
PIF3   Phytochrome interacting factor 3 (goat) **	AS16 3954	50 µg	WB
PIF4   Phytochrome interacting factor 4 (rabbit) **	AS16 3157	50 µg	WB
RGA   DELLA protein RGA ( <i>Oryza sativa</i> ) **	AS14 2796	50 µg	WB
SPA1   Suppressor of PhyA-105 **	AS16 3147	50 µl	WB

## Developmental biology - Senescence/Cell death

Antibody name/Product name	Product #	Unit size	Applications
ACD1   Accelerated cell death 1	AS11 1783	50 µl	WB
EIN2   Ethylene insensitive 2	AS12 1865	50 µg	WB
GLN1 GLN2   GS1 GS2 glutamine synthetase global antibody	AS08 295	50 µl	WB
GLN2   GS2, chloroplastic form of glutamine synthetase	AS08 296	400 µl	WB
KARI   Ketol-acid reductoisomerase	AS15 2879	100 µl	WB
PLD   Phospholipase D	AS09 556	10 mg	WB, ELISA,IF, IHC
PLD   phospholipase D, Affinity purified	AS09 558	1 mg	WB, ELISA,IF, IHC
PP2A   Serine/threonine protein phosphatase 2A 59 kDa regulatory subunit B' gamma isoform	AS13 2747	50 µg	IL, WB
SAG12   Senescence-specific cysteine protease SAG12	AS14 2771	50 µg	WB
SAM1-4   S-adenosylmethionine synthase	AS16 3148	50 µl	WB
HMT   Homocysteine S-methyltransferase **	AS16 3837	50 µl	WB
MKK2   Mitogen-activated protein kinase kinase 2 **	AS15 2905	200 µl	WB
SOBIR1   Suppressor of BIR1 (rabbit) **	AS16 3204	50 µg	IP, WB
SOBIR1   Suppressor of BIR1 (chicken) **	AS16 3959	50 µg	IP, WB

## Developmental biology - Signal transduction

Antibody name/Product name	Product #	Unit size	Applications
14.3.3C   14.3.3-like protein C	AS08 317	100 µl	WB, ELISA
14-3-3 GRF   General regulatory element	AS12 2119	50 µl	WB
ACC synthase 7   1-aminocyclopropane-1-carboxylate synthase 7	AS14 2774	100 µg	WB
ACCase subunit beta   Acetyl-coenzyme A, carboxylase (subunit beta)	AS15 2880	100 µl	WB
AHK2   Histidine kinase 2	AS12 2113	50 µg	WB
AKIN β gamma	AS09 463	50 µg	WB
AKIN10   SNF1-related protein kinase catalytic subunit alpha KIN10	AS10 919	2x50 µg	WB
AKIN11   SNF1-related protein kinase catalytic subunit alpha KIN11	AS10 920	50 µg	WB
AKINB1   SNF1-related protein kinase regulatory subunit beta-1	AS09 460	200 µg	WB
AKINB2   SNF1-related protein kinase regulatory subunit beta-2	AS09 462	200 µg	WB
AKINB3   SNF1-related protein kinase regulatory subunit beta-3	AS15 2859	50 µg	WB
AKING1   SNF1-related protein kinase regulatory subunit gamma 1	AS09 613	50 µg	WB
AP2   Floral homeotic protein APETALA 2	AS12 2609	50 µg	WB



## Developmental biology - Signal transduction

Antibody name/Product name	Product number	Unit size	Applications
ATG5   Autophagy-related protein 5	AS15 3060	50 µl	WB
ATG8   Autophagy-related protein	AS14 2769	50 µl	IL, WB
ATG8A-I   Autophagy-related protein 8A-I isoforms	AS14 2811	50 µl	WB
Calcineurin/EF-hand motif	AS13 2666	50 µg	WB
CDPK (1,2,3,4,7,8,10,11,14,20,25,30,32) Calcium-dependent protein kinase isoform (1,2,3,4,7,8,10,11,14,20,25,30,32)	AS13 2754	50 µg	WB
CHIT3   Chitinase 3	AS15 2888	100 µl	WB
CHIT8   Chitinase 8	AS15 2889	100 µl	WB
CNX1/2   CALNEXIN HOMOLOG 1/2	AS12 2365	50 µg	WB
COI1   Coronate insensitive 1 (rabbit)	AS12 2637	50 µg	WB
COI1   Coronate insensitive 1 (mouse)	AS16 3844	100 µg	WB
CPK-EF   Calcium-dependent protein kinase EF domain	AS11 1807	50 µg	WB
CPN60A1   Chaperonin 60 subunit alpha 1, chloroplastic	AS12 2613	50 µl	WB
DRP5B   Dynamin related protein 5B	AS12 2634	50 µg	WB
FIE   Fertilization-independent endosperm	AS12 2616	50 µg	WB
GID2   F-BOX protein GID2 (SLEEPY 1)	AS13 2638	50 µg	WB
GPA1   Guanine nucleotide-binding protein subunit alpha 1	AS12 2370	50 µg	WB
GPA1   Guanine nucleotide-binding protein subunit alpha 1	AS16 3939	50 µl	WB
HXK1   Hexokinase 1	AS12 2601	50 µl	WB
KrP   Kelch repeat-containing protein / galactose oxidase (At3g07720)	AS14 2764	50 µl	WB
LSD1   Lesion simulating disease 1 (chicken)	AS12 2104	50 µg	WB
LSD1   Lesion simulating disease 1 (rabbit)	AS13 2746	50 µg	WB
MKKK18   Mitogen-activated protein kinase 18	AS13 2673	50 µl	WB
MPK6   Mitogen-activated protein kinase 6	AS12 2633	50 µg	WB
MYC2   Transcription factor MYC2	AS12 1869	50 µl	WB
NRT1.1   Nitrate transporter 1.1	AS12 2611	50 µg	WB, IL
NRT2.1   Nitrate transporter 2.1	AS12 2612	50 µg	WB
PHOT1   Phototropin-1	AS10 720	100 µl	WB
PHOT2   Phototropin-2	AS10 721	100 µl	WB
PLDA1/2   Phospholipase D alpha 1/2	AS12 2364	50 µl	WB, IL
PP2A   Serine/threonine protein phosphatase 2A 59 kDa regulatory subunit B' gamma isoform	AS13 2747	50 µg	IL, WB
PPDK   Pyruvate orthophosphate dikinase	AS13 2647	20 µg	WB
PR-2   GLU I   Class I beta-1,3-glucanase	AS07 208	2 mg	WB, IL
PR-2   Pathogenesis-related protein 2	AS12 2366	50 µl	WB
PR-3 / CHN   Class I chitinase	AS07 207	2 mg	IP, IL, WB
PR-4   Pathogenesis-related protein 4 (Arabidopsis thaliana)	AS12 2369	50 µl	WB
P-Tyr   Phosphotyrosine	AS10 705	100 µg	WB, IP, IF, IHC
RACK1A   Receptor for activated C kinase 1A	AS11 1810	200 µl	WB
RCD1   Radical cell death 1	AS12 2602	100 µg	WB, IP
RE   N-terminal arginylation	AS15 3050	2x50 µg	Dot
SAM1-4   S-adenosylmethionine synthase	AS16 3148	50 µl	WB
SnRK2.2, SnRK2.3, SnRK2.6   Ser/Thr-protein kinase SnRK	AS14 2783	50 µg	WB
SPY   Spindly (100 µg)	AS13 2637	2 x 50 µg	WB
SRK2E   Ser/Thr-protein kinase SnRK2.6	AS13 2635	50 µg	WB, PdA, IP
SUMO1   Small ubiquitin-like modifier protein 1	AS08 308	1.5 mg	WB
SUMO3   Small ubiquitin-like modifier protein 3	AS08 349	50 µg	WB
TM2   Tobacco mosaic virus resistance-2	AS15 3062	50 µl	WB
TOR   Target of rapamycin	AS12 2608	50 µg	WB



## Developmental biology - Signal transduction

Antibody name/Product name	Product number	Unit size	Applications
TPS1   Trehalose-6-phosphate synthase 1	AS12 2635	50 µl	WB
UAGPase   UDP-GlcNAc pyrophosphorylase	AS14 2829	50 µl	WB
U-box domain-containing protein 12	AS13 2728	50 µl	WB
UBQ11   Ubiquitin	AS08 307	50 µl	WB
UBQ11   Ubiquitin protein (positive control)	AS10 307S	50 µl	WB
UBQ11   Ubiquitin (affinity purified)	AS08 307A	50 µg	WB
AGB1   Guanine nucleotide-binding protein beta 1 **	AS16 3937	50 µl	WB
AGB1/AGG1   Guanine nucleotide-binding protein subunit beta 1 and gamma 1 **	AS16 3938	50 µl	WB
AGB1   Guanine nucleotide-binding protein beta 1 **	AS15 3101	50 µl	WB
ARP4   Actin-related protein 4 **	AS14 2817	50 µg	WB
ATG7 **	AS15 3061	50 µl	WB
CBL   Calcineurin B-like protein **	AS16 4033	50 µl	WB
CBL4   Calcineurin B-like protein 4 (SOS3) **	AS12 2607	200 µg	WB
CIPK24   CBL-interacting Serine/Threonine-protein kinase 24 (SOS2) **	AS12 2606	200 µg	WB
CLV1   Receptor protein kinase CLAVATA1 **	AS11 1779	100 µg	WB
CPK-t2   Calcium-dependent protein kinase active site **	AS13 2667	µl	WB
DREB1A   Dehydration-responsive element-binding protein 1A **	AS16 3965	200 µg	WB
DREB2A   Dehydration-responsive element-binding protein 2A **	AS12 2368	200 µg	WB
GN   Gnom **	AS16 3980	50 µl	WB
HXK1   Hexokinase 1 (Chlamydomonas) **	AS16 4083	50 µl	WB
LFY   Leafy **	AS16 3990	50 µg	WB
MKK1   Mitogen-activated protein kinase kinase 1 **	AS15 2904	200 µl	WB
MKK2   Mitogen-activated protein kinase kinase 2 **	AS15 2905	200 µl	WB
MKK4   Mitogen-activated protein kinase kinase 4 **	AS15 2906	200 µl	WB
MKK5   Mitogen-activated protein kinase kinase 5 **	AS15 2907	200 µl	WB
NHX7   Sodium hydrogen exchanger 7 (SOS1) **	AS12 2605	200 µg	WB
PR-4   Pathogenesis-related protein 4 **	AS14 2810	200 µg	WB
PR-5   Pathogenesis-related protein 5 **	AS15 2858	50 µl	WB
PR-5   Pathogenesis-related protein 5 (A.thaliana) **	AS12 2373	200 µg	WB
PSY   Phytoene synthase **	AS16 3991	50 µl	WB
RACK1   Receptor for activated C kinase 1 **	AS16 3940	50 µl	WB
RAPTOR **	AS15 3049	50 µg	WB
RIN4   RPM1-interacting protein 4 **	AS15 2893	100 µl	WB
SMG1   Serine/threonine-protein kinase SMG1 **	AS14 2773	50 µl	WB
STO   Salt tolerance protein **	AS16 3986	µg	WB
VAS1   Reversal of SAV3 phenotype 1 **	AS13 2663	50 µg	WB

## DNA/RNA/cell cycle - Cell cycle

Antibody name/Product name	Product number	Unit size	Applications
ARC5   Dynamin-like protein ARC5	AS13 2676	50 µg	WB
ASY1   Asynaptic phenotype protein 1	AS08 323	100 µl	WB, ELISA, IL
ASY1   Asynaptic phenotype protein 1 monoclonal antibody	AS08 338	50 µg	WB, ELISA
CDC2   Cell-division-cycle kinase 2	AS06 153	100 µl	WB, IL
CENH3   Centromere specific histone H3 variant	AS12 2225-100	100 µl	IHC, WB
Phly   DNA photolyase (At4g25290)	AS15 2864	50 µg	WB
Phly   DNA photolyase (At4g25290) (N-terminal part)	AS15 2863	50 µg	WB

## DNA/RNA/cell cycle - Cell cycle

Antibody name/Product name	Product number	Unit size	Applications
RBR1   Retinoblastoma related protein	AS11 1627	50 µl	IP, WB
Rhodanese/cell cycle control phosphatase superfamily protein	AS15 2900	50 µl	WB
CENP-C   Centromeric protein C **	AS13 2680	50 µg	WB
Kinetochore protein-like (rice; Os02g0620100) **	AS13 2678	50 µg	WB
LOB domain-containing protein 6 **	AS11 1840	100 µg	WB
POT1b   Protection of telomeres protein 1b **	AS13 2681	50 µg	WB

## DNA/RNA/cell cycle - Epigenetics/DNA methylation

Antibody name/Product name	Product number	Unit size	Applications
5-fC   5-formylcytosine	AS16 3165	100 µl	DIP, ELISA
5-hmC   5-hydroxymethylcytosine (monoclonal)	AS16 3164	100 µg	Dot, ELISA, DIP
5-hmC   5-hydroxymethylcytosine (polyclonal)	AS16 3166	100 µl	Dot, ELISA, DIP
5-mC   5-methylcytosine (monoclonal antibody for MeDIP/IF)	AS16 3162	100 µg	DIP, IF
5-mC   5-methylcytosine (monoclonal)	AS16 3161	50 µg	Dot, IF, IP, FISH, DIP
5-mC   5-methylcytosine (monoclonal, clone 33D3)	AS16 3163	100 µg	ELISA, Dot, IF, DIP
Acetylated Lysine	AS15 3018	100 µg	WB, ICC, IF, IP, ELISA
Acetylated Lysine (25 µl)	AS10 707-25	25 µl	ELISA, ICC, IF, IHC, IP, WB
H2A.XS139p   H2A.X phosphorylated serine 139	AS16 3199	50 µg	Dot, ELISA, IF, WB
H3   Histone 3 core   (monoclonal)	AS16 3197	50 µg	ChIP, WB
H3K18me1   Histone H3 monomethylated Lys18	AS16 3181	50 µg	ChIP, Dot, IF, WB
H3K18me2   Histone H3 dimethylated Lys18	AS16 3182	50 µg	ChIP, Dot, IF, WB
H3K18me3   Histone H3 trimethylated Lys18	AS16 3183	50 µg	ChIP, Dot, IF, WB
H3K27ac   Histone H3 acetylated lysine 27 (ChIP grade)	AS16 3195	50 µg	ChIP, Dot, ELISA, IF, PA, WB
H3K27me3   Histone H3, trimethylated lysine 27 (H3K27me3)	AS16 3193	50 µg	ChIP, Dot, ELISA, IF, PA, WB
H3K27me3S28p   Histone H3 trimethylated Lys27, p Ser28	AS16 3184	50 µg	ChIP, Dot, IF, WB
H3K36me3   Histone H3 trimethylated lysine 36 (ChIP grade)	AS16 3196	50 µg	ChIP, Dot, ELISA, IF, PA, WB
H3K37me1   Histone H3 monomethylated Lys37	AS16 3186	50 µg	Dot, WB
H3K4me1T6p   Histone H3 monomethylated Lys4, p Thr6	AS16 3171	50 µg	ChIP, Dot, IF, IHC, WB
H3K4me3   Histone H3, trimethylated lysine 4 (H3K4me3)	AS16 3192	50 µg	ChIP, Dot, IF, WB
H3K4me3   Histone H3, trimethylated lysine 4 (H3K4me3)	AS16 3190	50 µg	ChIP, Dot, ELISA, IF, PA, WB
H3K4me3T6p   H3 trimethylated Lys4, p Thr6	AS16 3172	50 µg	ChIP, Dot, IF, IHC, WB
H3K56me1   Histone H3 monomethylated Lys56	AS16 3187	50 µg	ChIP, Dot, IF, WB
H3K56me3   Histone H3 trimethylated Lys56	AS16 3188	50 µg	ChIP, Dot, IF, WB
H3K9ac   Histone H3, acetylated lysine 9	AS16 3198	50 µg	ChIP, Dot, ELISA, IF, WB
H3K9me2   Histone H3 dimethylated lysine 9	AS16 3194	50 µg	ChIP, Dot, ELISA, IF, WB
H3R17me2(asym)   Histone H3 asym-dimethyl Arg17	AS16 3180	50 µg	ChIP, IF, WB
H3R2me1   Histone H3 monomethylated Arg2	AS16 3167	50 µg	WB
H3R2me2(sym)K4me2   Histone H3 sym-dimethylated Arg2, dimethyl Lys4	AS16 3185	50 µg	ChIP, Dot, IF, WB
H3R8me2(asym)   Histone H3 asym-dimethylated Arg8	AS16 3177	50 µg	ChIP, IF, IHC, WB
H3R8me2(sym)   H3 Histone 3 sym-dimethylated Arg8	AS16 3178	50 µg	ChIP, WB
H3S10p   Histone H3 p Ser10 (affinity purified)	AS16 3635	50 µg	ChIP, Dot, ELISA, IF, WB
H3S10p   Histone H3 p Ser10 (serum)	AS16 3636	100 µl	ChIP, Dot, ELISA, IF, IP, WB
H3S10pT11p   Histone H3 p Ser10, p Thr11	AS16 3179	50 µg	ChIP, IF, IHC, WB
H3T3pK4ac   Histone H3 ac Lys4, p Thr3	AS16 3170	50 µg	ChIP, Dot, IF, IHC, WB
H3T3pK4me1   Histone H3 p Thr3, monomethylated Lys4	AS16 3168	50 µg	Dot, IF, IHC, WB
H3T3pK4me2   Histone H3 dimethylated Lys4, p Thr3	AS16 3169	50 µg	Dot, ChIP, IF, IHC, WB
H3T6p   Histone H3 p Thr6	AS16 3173	50 µg	ChIP, Dot, IF, IHC, WB
H3T6pK9me1   Histone H3 methylated at Lys9 (K9)	AS16 3174	50 µg	ChIP, Dot, IF, IHC, WB



## DNA/RNA/cell cycle - Epigenetics/DNA methylation

Antibody name/Product name	Product number	Unit size	Applications
Blue ladder monoclonal antibody	AS16 3201	50 µl	WB
H3T6pK9me2   Histone H3 dimethylated Lys9, p Thr6	AS16 3175	50 µg	ChIP, IF, IHC, WB
H3T6pK9me3   Histone H3 trimethylated Lys9, p Thr6	AS16 3176	50 µg	Dot, ChIP, IF, IHC, WB
H4K16ac   Histone H4 acetylated Lys16	AS16 3189	50 µg	ChIP, Dot, IF, IHC, WB
Methylated Lysine	AS15 3021	400 µl	WB, IHC, IP, ELISA

## DNA/RNA/cell cycle - microRNA

Antibody name/Product name	Product number	Unit size	Applications
AGO1   Argonaute 1	AS09 527	50 µg	WB
AGO1   Argonaute 1 (Chlamydomonas)	AS14 2776	1 mg	WB
AGO10   Argonaute 10	AS15 3071	50 µl	WB
AGO2   Argonaute 2	AS13 2682	50 µg	WB
AGO4   Argonaute 4	AS09 617	50 µg	WB, IP, ICC
AGO5   Argonaute 5	AS10 671	200 µg	WB, IP
AGO6   Argonaute 6	AS10 672	100 µg	WB
AGO9   Argonaute 9	AS10 673	100 µg	WB, IP
CBP20   Nuclear cap-binding protein subunit 2	AS09 530	200 µg	WB, IP
CBP80   Nuclear cap-binding protein subunit 1	AS09 531	200 µl	WB
DCL1   Dicer-like protein 1	AS12 2102	100 µg	RIP, WB
DCL3   Dicer-like protein 3	AS12 2103	200 µg	WB
HEN1   HUA ENHANCER 1	AS15 3095	200 µg	WB
HYL1   Hyponastic leave phenotype ds-RNA binding protein	AS06 136	50 µl	RIP, WB
KARI   Ketol-acid reductoisomerase	AS15 2879	100 µl	WB
RPL2   Ribosomal protein L2 (chloroplastic)	AS15 2876	100 µl	WB
RPL4   ribosomal protein L4 (chloroplastic)	AS15 3076	100 µl	WB
RPS1   Ribosomal protein S1 (chloroplastic)	AS15 2875	100 µl	WB
RPS7   Ribosomal protein S7 (chloroplastic)	AS15 2877	100 µl	WB
SE   Serrate RNA effector molecule (rabbit)	AS09 532A	50 µg	IL, RIP, WB
SE   Serrate RNA effector molecule (chicken)	AS15 2836	50 µg	WB
PELOTA   Protein pelota homolog **	AS16 3984	50 µl	WB

## DNA/RNA/cell cycle - microRNA targets

Antibody name/Product name	Product number	Unit size	Applications
CCS   Chloroplastic copper chaperone for SOD	AS07 219	200 µl	WB
CSD2   Chloroplastic Cu/Zn superoxide dismutase	AS06 170	50 µl	WB
PELOTA   Protein pelota homolog **	AS16 3984	50 µl	WB

## DNA/RNA/cell cycle - Nuclear signaling

Antibody name/Product name	Product number	Unit size	Applications
8-Hydroxyguanosine   DNA/RNA oxidative damage	AS10 708-100	100 µg	ELISA, IHC-Fr-P, AP
H1   Histone H1	AS11 1801	50 µg	WB, ICC
H3   Histone H3 (affinity purified)	AS10 710A	50 µg	ChIP-qPCR, WB
H3   Histone H3 (chicken)	AS15 2855	50 µl	WB
H3   Histone H3 (rabbit)	AS10 710	50 µl	ChIP-qPCR, ICC, WB
HDT1   Histone deacetylase	AS11 1792	100 µg	WB
HTA9   Probable histone H2A variant 3	AS10 718	50 µg	WB
HTR12   Histone H3-like centromeric protein	AS12 2226-100	100 µl	ELISA, IHC, WB



## DNA/RNA/cell cycle - Nuclear signaling

Antibody name/Product name	Product number	Unit size	Applications
LexA   SOS function regulatory protein	AS12 2614	100 µl	WB
PEL1   Pelota	AS11 1798	200 µl	WB
SUN1,2 (nuclear envelope protein) (Arabidopsis thaliana)	AS15 2856	50 µg	WB
COIL   Coilin (Cajal bodies protein) **	AS16 3842	50 µl	WB, ICC
HDT3   Histone deacetylase HDT3 **	AS16 3968	50 µg	WB, IP
PARP-1,2   Poly [ADP-ribose] polymerase 1,2 **	AS15 3012	200 µl	ICC
PARP2   Poly [ADP-ribose] polymerase 2 **	AS16 3838	200 µl	WB
PARP-2   Poly [ADP-ribose] polymerase 2 **	AS10 675	200 µl	ICC
P-Ser   Phosphoserine **	AS15 2874	100 µg	WB
SUN1,2 (nuclear envelope protein) (other species) **	AS15 2857	50 µl	WB, ICC

## DNA/RNA/cell cycle - RNA metabolism

Antibody name/Product name	Product number	Unit size	Applications
PRP39a   Pre-mRNA-processing factor 39	AS14 2784	50 µl	WB
PRP40B   Pre-mRNA-processing protein 40B	AS14 2785	50 µg	WB
U1 snRNP 70 kDa   U1 small nuclear ribonucleoprotein 70 kDa **	AS14 2778	50 µg	WB
U1 snRNP protein A   U1 small nuclear ribonucleoprotein A **	AS14 2777	50 µg	WB

## DNA/RNA/cell cycle - Transcription regulation

Antibody name/Product name	Product number	Unit size	Applications
A12.2   RNA polymerase I subunit (homolog of Pol II Rpb9)	AS07 225	200 µg	WB
Acetylated Lysine	AS15 3018	100 µg	WB, ICC, IF, IP, ELISA
DCL2   Dicer-like protein 2	AS15 3100	200 µg	WB
DNA-binding storekeeper protein-related transcriptional regulator	AS11 1774	100 µg	WB
DOG1 alpha splice variant	AS15 3032	50 µg	WB
DRB4   Double-stranded RNA-binding protein 4	AS15 3104	50 µl	WB
GI   Gigantea	AS12 1864A	50 µg	WB
HDA6   Histone deacetylase 6	AS14 2787	50 µg	WB
HDZipl-1   Homeodomain-leucine zipper transcription factor	AS08 339	50 µg	WB, ELISA
MARBP   Matrix attachment region-binding protein	AS10 696	100 µl	WB, IF
Med 6   Mediator of RNA polymerase II transcription subunit 6	AS14 2802	50 µg	WB
Methylated Lysine	AS15 3021	400 µl	WB, IHC, IP, ELISA
MLP3.6 protein   Transcription factor jumonji (JmjC) domain-containing protein	AS13 2679	50 µg	WB
PIF4   Phytochrome interacting factor 4 (goat)	AS16 3955	50 µg	WB
PIF5   Phytochrome interacting factor 5	AS12 2112	50 µg	WB
RDR2   RNA-dependent RNA polymerase 2	AS15 3097	200 µg	WB, IP
RDR6   RNA-dependent RNA polymerase 6	AS15 3098	50 µl	WB, IP
RPB1   RNA polymerase II subunit B1	AS11 1804	50 µg	IP
RpoTm   DNA-directed mitochondrial RNA polymerase (RpoT1; mitochondrial NEP)	AS15 3078	100 µl	WB
SGS3   Protein suppressor of gene silencing 3	AS15 3099	50 µg	WB
SOC1   Suppressor of constans overexpression 1	AS12 1856	50 µg	WB
Spermine	AS09 599	100 µl	ELISA
STM   Homeobox protein SHOOT MERISTEMLESS	AS11 1764	50 µg	WB
TOP2   DNA topoisomerase II	AS05 096	200 µl	WB, IL
U1 snRNP 70 kDa   U1 small nuclear ribonucleoprotein 70 kDa	AS14 2778	50 µg	WB
U1 snRNP protein A   U1 small nuclear ribonucleoprotein A	AS14 2777	50 µg	WB
WRKY10 transcription factor	AS16 3851	50 µl	WB



## DNA/RNA/cell cycle - Transcription regulation

Antibody name/Product name	Product number	Unit size	Applications
WRKY22   WRKY transcription factor 22	AS16 3830	100 µl	WB
WUS   WUSCHEL protein	AS11 1759	50 µg	WB
Acetylated H2a   Acetylated histone 2a **	AS15 2837	50 µg	WB, IL
AP2 domain-containing transcription factor **	AS11 1762	100 µg	WB
ARP6   Actin-related protein 6 **	AS12 2106	200 µg	WB
BAH   Bromo-adjacent homology domain-containing protein **	AS13 2674	50 µg	WB
CO   Constans (goat) **	AS16 3160	50 µg	WB
CO   Constans (chicken) **	AS16 3958	50 µg	WB
DCL4   Dicer-like protein 4 **	AS15 3105	50 µl	WB
DREB1A   Dehydration-responsive element-binding protein 1A **	AS16 3965	200 µg	WB
FIE   Fertilization-independent endosperm (At3g20740; polycomb group protein) **	AS11 1760	100 µg	WB
GLIM   LIM domain protein GLIM1b **	AS11 1794	100 µg	WB
Homeodomain protein BP **	AS11 1832	100 µg	WB
KNAT1   Homeobox protein knotted-1-like 1 **	AS11 1763	100 µg	WB
KUA1   MYB transcription factor **	AS15 2989	50 µg	WB
LUX   Transcription factor LUX **	AS16 4106	50 µg	WB
Med7a/b   Mediator of RNA polymerase II transcription subunit 7a/b **	AS14 2803A	50 µg	WB
MYB174 **	AS11 1790	100 µg	WB
PIF3   Phytochrome interacting factor 3 (rabbit) **	AS16 3156	50 µg	WB
PIF3   Phytochrome interacting factor 3 (goat) **	AS16 3954	50 µg	WB
PIF4   Phytochrome interacting factor 4 (rabbit) **	AS16 3157	50 µg	WB
RDR1   RNA-dependent RNA polymerase 1 **	AS15 3096	200 µg	WB
RpoA   RNA polymerase alpha subunit (chloroplast) **	AS15 2866	50 µl	WB
RpoTp   DNA-directed plastidal RNA polymerase (RpoT3; plastidal NEP) **	AS16 3150	50 µl	WB
TERT   Telomerase reverse transcriptase **	AS15 3103	50 µl	WB
TGA1   TGACG motif-binding factor 1, bZIP transcription factor **	AS16 3208	50 µg	WB
TGA2   TGACG motif-binding factor 2, bZIP transcription factor **	AS16 3209	50 µg	WB
TOC1   Timing of CAB expression 1 **	AS13 2646	200 µg	WB
TOC1   Timing of CAB expression 1 (other species) **	AS14 2823	2x50 µg	WB
TPL   Transcription factor TOPLESS (rabbit) **	AS16 3207	50 µg	WB
TPL   Transcription factor TOPLESS (chicken) **	AS16 3960	50 µg	WB

## DNA/RNA/cell cycle - Translation

Antibody name/Product name	Product number	Unit size	Applications
Acetylated Lysine	AS15 3018	100 µg	WB, ICC, IF, IP, ELISA
Acetylated Lysine	AS10 707-100	100 µl	ELISA, ICC, IF, IHC, IP, WB
CSP41b   Ribosome associated endonuclease (CRB)	AS08 298	200 µg	WB
eEF1a   Elongation factor 1-alpha	AS10 934	200 µl	WB
eEF1b   Elongation factor 1-beta	AS07 265	200 µl	WB
eEF1B-alpha1 an 2   Elongation factor 1B-alpha 1 and 1B-alpha 2	AS10 678	100 µl	WB
eEF1B-alpha2   Elongation factor 1B-alpha 2	AS10 679	200 µl	WB
eEF1B-beta1 and 2   Elongation factor 1-beta1 and 1-beta2	AS10 677	200 µl	WB
eEF1B-gamma1 and 2   Elongation factor 1-gamma 1 and 2	AS10 676	200 µl	WB

## DNA/RNA/cell cycle - Translation

Antibody name/Product name	Product number	Unit size	Applications
EF1A   Elongation factor 1-alpha / EF-1-alpha	AS11 1633	200 µl	WB
EF-G1   Elongation factor G1	AS13 2652	50 µl	WB
KARI   Ketol-acid reductoisomerase	AS15 2879	100 µl	WB
L13-1   60S ribosomal protein L13-1	AS13 2650	200 µg	WB
L16   Mitochondrial ribosomal large subunit protein L16	AS15 3069	50 µl	WB
L7/L12   Ribosomal protein	AS08 331	200 µl	WB
Methylated Lysine, APC conjugated	AS15 3022	400 µl	WB, IHC, IP, ELISA
Methylated Lysine, FITC conjugated	AS15 3023	400 µl	WB, IHC, IP, ELISA
RCS1   Cysteine synthase	AS16 3849	50 µl	WB
RD   N-terminal arginylation	AS15 3050A	2x25 µg	Dot
RE   N-terminal arginylation	AS15 3050	2x50 µg	Dot
RPL1   50S ribosomal protein L1	AS11 1738	100 µl	WB
RPL2   Ribosomal protein L2 (chloroplastic)	AS15 2876	100 µl	WB
RPL37   Ribosomal protein L37 (cytoplasmic)	AS12 2115	50 µl	WB
RPL4   Ribosomal protein L4 (chloroplastic)	AS15 3076	100 µl	WB
RPS1   30S ribosomal protein S1	AS08 309	50 µl	WB
RPS1   Ribosomal protein S1 (chloroplastic)	AS15 2875	100 µl	WB
RPS1   Ribosomal protein S1 (mitochondrial)	AS16 3835	100 µl	WB
RPS12   Ribosomal protein S12 (chloroplastic)	AS12 2114	50 µl	WB
RPS14   Ribosomal protein S14 (mitochondrial)	AS16 4094	50 µg	WB
RPS2   Ribosomal protein S2 (mitochondrial)	AS16 3832	100 µl	WB
RPS5   Ribosomal protein S5 (chloroplastic)	AS15 3075	100 µl	WB
RPS7   Ribosomal protein S7 (chloroplastic)	AS15 2877	100 µl	WB
S10   Mitochondrial ribosomal small subunit protein S10	AS15 3067	50 µl	WB
S4   Mitochondrial ribosomal small subunit protein S4	AS15 3068	50 µl	WB
S6K1/2   Ribosomal S6 kinase 1/2	AS12 1855	50 µg	WB
S6K1-2   Ribosomal-protein S6 kinase homolog 1,2 - phosphorylated	AS13 2664	50 µg	WB
RPL33   50S ribosomal protein L33 (chloroplastic) **	AS16 4082	50 µg	WB
RPL33   50S ribosomal protein L33 (chloroplastic) **	AS14 2780	50 µg	WB
RPS14   40S ribosomal protein S14-1 **	AS12 2111	100 µg	WB
Rps2   Ribosomal subunit 2 (cytoplasmic) **	AS10 719	200 µl	WB

## Environmental stress - Cold stress

Antibody name/Product name	Product number	Unit size	Applications
ClpB1   Chaperone protein ClpB1 (cyanobacterial)	AS16 4039	50 µl	WB
ClpB2   Chaperone protein ClpB2 (cyanobacterial)	AS16 4040	50 µl	WB
COR14b   Cor14b-encoded cold regulated protein	AS06 169	100 µl	WB
CPT6   Cis-prenyltransferase 6	AS14 2768	50 µg	WB
Enolase	AS10 651	200 µl	WB
GORK   Potassium channel GORK	AS14 2795	50 µg	WB
LEA4-5   Late embryogenesis abundant protein 4-5	AS13 2758	50 µl	WB
LEA4-5   Late embryogenesis abundant protein 4-5 (affinity purified)	AS13 2758A	50 µg	WB
LEA6-3   Late embryogenesis abundant protein 6-3	AS13 2756	50 µl	WB
PGL35   Plastoglobulin 35; FIB1a; FBN1a	AS06 116	200 µl	WB, ICC
Proline ELISA quantitation kit	AS16 3151	50 µl	WB
S6K1-2   Ribosomal-protein S6 kinase homolog 1,2 - phosphorylated	AS13 2664	50 µg	WB
slI0528   Putative zinc metalloprotease slI0528	AS10 1592	100 µl	WB
SUS1   Sucrose synthase 1	AS15 2830	50 µl	WB



## Environmental stress - Cold stress

Antibody name/Product name	Product number	Unit size	Applications
V-ATPase   Epsilon subunit of tonoplast H+ATPase	AS07 213	50 µl	IHC, WB
V-ATPase   Epsilon subunit of tonoplast H+ATPase	AS09 577	300 µl	WB
V-ATPase   Epsilon subunit of tonoplast H+ATPase (affinity purified)	AS09 577A	200 µg	WB
CBL   Calcineurin B-like protein **	AS16 4033	50 µl	WB

## Environmental stress - Drought stress

Antibody name/Product name	Product number	Unit size	Applications
AHB2   Hemoglobin 2	AS13 2745	50 µl	WB
APase   Acid phosphatase	AS09 520	1 mg	WB, ELISA, IF, IHC
APase   Acid phosphatase, Biotin conjugated	AS09 541	1 ml	WB, ELISA, IF, IHC
ATG5   Autophagy-related protein 5	AS15 3060	50 µl	WB
ATG8   Autophagy-related protein	AS14 2769	50 µl	IL, WB
BiP   Lumenal-binding protein	AS09 481	50 µg	ELISA, IF, IG, WB
Cat   Catalase (peroxisomal marker)	AS09 501	50 µl	WB
Dehydrin	AS07 206	200 µl	WB
Dehydrin (affinity purified)	AS07 206A	50 µg	WB
EIN2   Ethylene insensitive 2	AS12 1865	50 µg	WB
GLDH   Galactono-1,4 lactone dehydrogenase	AS06 182	100 µl	WB
GLN1 GLN2   GS1 GS2 glutamine synthetase global antibody	AS08 295	50 µl	WB
GLN2   GS2, chloroplastic form of glutamine synthetase	AS08 296	400 µl	WB
GORK   Potassium channel GORK	AS14 2795	50 µg	WB
LEA3   Late embryogenesis abundant protein	AS16 3845	50 µl	WB
LEA4-25   Group 4-late embryogenesis abundant protein	AS13 2757	50 µl	WB
LEA4-5   Late embryogenesis abundant protein 4-5	AS13 2758	50 µl	WB
LEA4-5   Late embryogenesis abundant protein 4-5 (affinity purified)	AS13 2758A	50 µg	WB
LEA6-3   Late embryogenesis abundant protein 6-3	AS13 2756	50 µl	WB
LOX   Lipoxygenase	AS06 128	50 µl	WB
LOX   Lipoxygenase (affinity purified)	AS06 128A	50 µg	WB
LOX-C   Lipoxygenase (chloroplastic)	AS07 258	100 µl	WB
PIP2;3   Aquaporin, plasma membrane intrinsic protein 2-3	AS09 506	100 µl	ELISA, WB, IG
PIP2;7   Plasma membrane aquaporin (N-terminal)	AS09 469	100 µl	ELISA, WB
PIP2-1-7   Plasma membrane aquaporin isoforms 1-7 (C-terminal)	AS12 2110	100 µl	WB
PR-1   Pathogenesis-related protein 1	AS10 687	50 µl	WB
Proline ELISA quantitation kit	AS16 3151	50 µl	WB
SAM1-4   S-adenosylmethionine synthase	AS16 3148	50 µl	WB
SUS1   Sucrose synthase 1	AS15 2830	50 µl	WB
ZEP   Zeaxanthin Epoxidase	AS08 289	50 µl	WB
ZEP   Zeaxanthin Epoxidase	AS15 3092	50 µl	WB
CBL   Calcineurin B-like protein **	AS16 4033	50 µl	WB
FAAH   Fatty acid amide hydrolase **	AS16 3972	50 µg	WB
HD-ZIP   Homeobox-leucine zipper protein ATHB-12 **	AS11 1766	100 µg	WB
HD-ZIP   Homeobox-leucine zipper protein ATHB-13 **	AS11 1767	100 µg	WB
HMT   Homocysteine S-methyltransferase **	AS16 3837	50 µl	WB
HOS1   E3 ubiquitin-protein ligase HOS1 **	AS16 3970	50 µg	WB
ICE1   Inducer of CBF expression 1 **	AS16 3971	50 µg	WB
MKK1   Mitogen-activated protein kinase kinase 1 **	AS15 2904	200 µl	WB
NCED3   9-cis-epoxycarotenoid dioxygenase NCED3 **	AS16 3964	50 µg	WB
PDF1   Plant defensin 1 **	AS16 3973	50 µg	WB

## Environmental stress - Heat shock

Antibody name/Product name	Product number	Unit size	Applications
ABI2   Abscisic acid insensitive 2	AS12 1871	50 µg	WB
ACD   Alpha crystalline domain of sHSP	AS15 3029	50 µl	WB
AHB2   Hemoglobin 2	AS13 2745	50 µl	WB
ATPase AAA2 domain	AS11 1754	200 µl	WB
CDJ1   Chloroplast DnaJ homolog 1	AS06 179	100 µl	WB, IP
CGE1   Alfa-CGE1, chloroplastic GrpE homolog	AS06 176	100 µl	WB, IP
ClpB-P   ClpB3	AS09 459	200 µl	WB
DnaJ   Prokaryotic heat shock protein	AS07 271	200 µl	WB
DnaK   Chloroplast stromal chaperone	AS07 270	200 µl	WB
DnaK2   Heat shock protein 70-2 (HSP70-2)	AS08 350	200 µl	WB
EIN2   Ethylene insensitive 2	AS12 1865	50 µg	WB
HSC70/HSP70   Heat shock cognate protein 70 / heat shock protein 70	AS07 233	100 µl	WB, ELISA, IP
HSF1   Heat shock factor 1	AS06 178	100 µl	WB
HSP101   ClpB heat shock protein, C-terminal	AS08 287	200 µl	WB
HSP101   ClpB heat shock protein, N-terminal (rabbit)	AS07 253	50 µl	WB
HSP101   ClpB heat shock protein, N-terminal (chicken)	AS08 283	200 µl	WB
HSP101   Nuclear/cytoplasmatic heat shock protein	AS08 290	200 µl	WB
HSP16.6   Class I heat shock protein 16.6 (cytosolic)	AS08 286	100 µl	WB
HSP16.9   16.9 kDa class I heat shock protein 2	AS12 2570	100 µl	WB
HSP17.6   Cytosolic class I heat shock protein 17.6 (rabbit)	AS07 254	50 µl	WB
HSP17.6   Cytosolic class I heat shock protein 17.6 (chicken)	AS08 284	200 µl	WB
HSP17.7   Cytosolic class II heat shock protein 17.7	AS07 255	200 µl	WB
HSP18.5   Class IV heat shock protein	AS11 1628	200 µl	WB
HSP21   Chloroplastic heat shock protein	AS08 285	50 µl	WB
HSP23.5   Heat shock protein 23.5 (mitochondrial)	AS15 2979	50 µg	WB
HSP23.6   Heat shock protein 23.6 (mitochondrial)	AS15 2980	50 µg	WB
HSP26.5   Heat shock protein 26.5 (mitochondrial)	AS15 2981	50 µg	WB
HSP70   Heat shock protein 70 (cytoplasmic)	AS08 371	50 µl	WB, IP
HSP70   Heat shock protein 70 (chloroplastic)	AS08 348	200 µl	WB, IP
HSP70   Heat shock protein 70 (mitochondrial)	AS08 347	2 x 50 µg	WB
HSP70B   Stromal alfa-HSP70	AS06 175	100 µl	WB IP
HSP90-1   Heat shock protein 90-1	AS08 346	50 µl	WB
HSP90-2   Heat shock protein 90-2	AS11 1629	100 µl	WB
HSP90C   Alfa-HSP90C, heat shock protein	AS06 174	100 µl	WB IP
slr0156   ATP-dependent chaperone clpB	AS08 355	100 µl	WB
slr1641   ATP-dependent chaperone clpB	AS08 344	100 µl	WB

## Environmental stress - Heavy metal stress

Antibody name/Product name	Product number	Unit size	Applications
ALD   Fructose-1,6 bisphosphate aldolase	AS08 294	100 µl	WB
APX   L-ascorbate peroxidase	AS08 368	200 µl	WB
CCS   Chloroplastic copper chaperone for SOD	AS07 219	200 µl	WB
CSD2   Chloroplastic Cu/Zn superoxide dismutase	AS06 170	50 µl	WB
Cu/ZnSOD   Cu/Zn superoxide dismutase	AS10 652	100 µl	WB
FeSOD   Chloroplastic Fe-dependent superoxide dismutase	AS06 125	50 µl	WB
Gamma-glutamyl-cysteine	AS11 1811	2x100 µg	ICC, IG
GPX   Glutathione peroxidase, chloroplastic	AS04 055	100 µl	WB ELISA
GR   Glutathione reductase	AS06 181	100 µl	IL, IP, WB
GSNO   Nitroso-L.glutathione	AS08 361	100 µl	ICC, ELISA





## Environmental stress - Heavy metal stress

Antibody name/Product name	Product number	Unit size	Applications
IRT1   Iron regulated transporter 1	AS11 1780	100 µg	WB
KrP   Kelch repeat-containing protein / galactose oxidase (At3g07720)	AS14 2764	50 µl	WB
LOX   Lipoxygenase	AS06 128	50 µl	WB
LOX   Lipoxygenase (affinity purified)	AS06 128A	50 µg	WB
LOX-C   Lipoxygenase, chloroplastic	AS07 258	100 µl	WB
MnSOD   Manganese superoxide dismutase	AS09 524	50 µl	WB
MT1a   Metallothionein type1	AS13 2684	50 µg	WB, IL
MT2a   Metallothionein 2a	AS13 2685	50 µg	WB, IL
NtrC   Thioredoxin reductase (TR/TRxR)	AS06 159	200 µg	WB
NtrC   Thioredoxin reductase (TR/TRxR)	AS07 243	200 µg	WB
Proline ELISA quantitation kit	AS16 3151	50 µl	WB
RGA   DELLA protein RGA	AS11 1630	50 µg	WB
SUS1   Sucrose synthase 1	AS15 2830	50 µl	WB
ZCP1   Zinc Chaperone Protein	AS14 2770	50 µl	WB
ZCP2   Zinc Chaperone Protein	AS12 1848	50 µl	WB
RGA   DELLA protein RGA ( <i>Oryza sativa</i> ) **	AS14 2796	50 µg	WB

## Environmental stress - Hypoxia

Antibody name/Product name	Product number	Unit size	Applications
ADH   Alcohol dehydrogenase (hypoxia marker)	AS10 685	100 µl	WB
ADH/ALDH   Alcohol/acetaldehyde dehydrogenase (bacterial/algal)	AS10 748	200 µl	WB
PDC   Pyruvate decarboxylase	AS10 691	100 µl	WB
Sub1C   Submergence-1C	AS11 1770	100 µl	WB
SUS1   Sucrose synthase 1	AS15 2830	50 µl	WB
Sub1A   Sub1a protein (rice) **	AS11 1769	200 µl	WB

## Environmental stress - Oxidative stress

Antibody name/Product name	Product number	Unit size	Applications
3-nitroY   Nitrotyrosine	AS10 706-100	100 µl	WB, ELISA, IHC, IP
ACO1   Aconitase	AS09 521	100 µl	WB
AHB2   Hemoglobin 2	AS13 2745	50 µl	WB
AO   Apoplastic ascorbate oxidase	AS06 184	100 µl	WB
AO   Ascorbate oxidase	AS09 384	1 mg	WB, ELISA, IHC
AO   Ascorbate oxidase, Biotin conjugated	AS09 383	10 mg	WB, ELISA
AOX1   Alternative oxidase 1	AS06 152	100 µl	WB
AOX1/2   Plant alternative oxidase 1 and 2	AS04 054	50 µl	WB, IL
APX   L-ascorbate peroxidase	AS08 368	200 µl	WB
ATG4   Autophagy protein 4	AS15 2831	50 µl	WB
cAPX   Ascorbate peroxidase (cytosolic)	AS06 180	200 µl	WB, IP, IL
Cat   Catalase (algal)	AS15 2991	50 µl	WB
CCS   Chloroplastic copper chaperone for SOD	AS07 219	200 µl	WB
Cu/ZnSOD   Cu/Zn superoxide dismutase	AS10 652	100 µl	WB
DHAR1   Dehydroascorbate Reductase 1	AS11 1746	200 µg	WB
DHAR2   Dehydroascorbate Reductase 2	AS11 1747	200 µg	WB
DMPO   DMPO nitron adduct	AS11 1632	100 µl	ELISA, IT, WB, ICC, IP
DNA Damage (8-OHdG) ELISA kit	AS15 2887	50 µg	WB
DON   Deoxynivalenol (Vomitoxin) ELISA kit	AS16 4028	50 µg	WB
EDS1   Enhanced disease susceptibility 1	AS13 2751	50 µg	WB

## Environmental stress - Oxidative stress

Antibody name/Product name	Product number	Unit size	Applications
FeSOD   Chloroplastic Fe-dependent superoxide dismutase	AS06 125	50 µl	WB
Gamma-ECS   Gamma glutamylcysteine synthase	AS06 186	100 µl	WB, IL
Gamma-glutamyl-cysteine	AS11 1811	2x100 µg	ICC, IG
GDP-L-Galactose phosphorylase	AS10 723	200 µl	WB
GOX   Glycolate oxidase 1,2,3	AS14 2772	50 µg	WB
GPX   Glutathione peroxidase (chloroplastic)	AS04 055	100 µl	WB ELISA
GR   Glutathione reductase	AS06 181	100 µl	IL, IP, WB
Grx5   Monothiol glutaredoxin-S5	AS15 3108	50 µl	WB
GS   Glutathione synthase, GSH-S	AS06 183	100 µl	IL, WB
GSH   Glutathione (rabbit)	AS09 594	100 µl	IHC, ID
GSH   Glutathione (rat)	AS09 595	100 µl	ELISA, IHC
HRP   Horseradish peroxidase	AS16 3951	50 µl	ELISA, WB
HRP   Horseradish peroxidase (affinity purified)	AS09 549	1 mg	WB, ELISA,IF, IHC
KatG   Catalase peroxidase (HPI), Cyanobacterial	AS08 374	200 µl	WB
L-cys   L-cysteine	AS08 360	100 µl	ICC
LOX2   Lipoxygenase 2	AS08 340	50 µg	WB, ELISA
MnSOD   Manganese superoxide dismutase	AS09 524	50 µl	WB
NBR1   Autophagy substrate NBR1 (affinity purified)	AS14 2805A	50 µg	WB
PGL35   Plastoglobulin 35; FIB1a; FBN1a	AS06 116	200 µl	WB, ICC
Proline ELISA quantitation kit	AS16 3151	50 µl	WB
PrxQ   Peroxiredoxin, thioredoxin reductase	AS05 093	200 µl	WB
PsbA   D1 protein of PSII, C-terminal	AS05 084	50 µl	WB
PsbA   D1 protein of PSII, C-terminal (affinity purified)	AS05 084A	50 µg	WB
PsbA   D1 protein of PSII, C-terminal (100 µl)	AS01 016	100 µl	WB
PsbA   D1 protein of PSII, phosphorylated	AS13 2669	50 µg	WB
RBOHD   Respiratory burst oxidase homolog protein D	AS15 2962	50 µg	WB
RGA   DELLA protein RGA	AS11 1630	50 µg	WB
GrxS3,4,5   Monothiol glutaredoxin-S3, S4, S5	AS13 2703	µl	WB
RGA   DELLA protein RGA ( <i>Oryza sativa</i> ) **	AS14 2796	50 µg	WB

## Environmental stress - Pathogen attack

Antibody name/Product name	Product number	Unit size	Applications
AGO2   Argonaute 2	AS13 2682	50 µg	WB
ATG4   Autophagy protein 4	AS15 2831	50 µl	WB
ATG5   Autophagy-related protein 5	AS15 3060	50 µl	WB
ATG8   Autophagy-related protein	AS14 2769	50 µl	IL, WB
COI1   Coronate insensitive 1 (rabbit)	AS12 2637	50 µg	WB
COI1   Coronate insensitive 1 (mouse)	AS16 3844	100 µg	WB
Cp2   Cysteine protease	AS16 3110	50 µl	WB
CPK-EF   Calcium-dependent protein kinase EF domain	AS11 1807	50 µg	WB
EDS1   Enhanced disease susceptibility 1	AS13 2751	50 µg	WB
EIN2   Ethylene insensitive 2	AS12 1865	50 µg	WB
EIN2   Ethylene insensitive 2	AS12 1865	50 µg	WB
FLS2   Flagellin-sensitive 2	AS12 1857	50 µg	WB
GOX   Glycolate oxidase 1,2,3	AS14 2772	50 µg	WB
Hellethionin (100 ul)	AS10 1626	100 µl	ELISA, WB
HRP   Horseradish peroxidase	AS16 3951	50 µl	ELISA, WB
IFR   Isoflavone reductase	AS16 3847	50 µl	WB
NBR1   Autophagy substrate NBR1	AS14 2805	50 µl	WB



## Environmental stress - Pathogen attack

Antibody name/Product name	Product number	Unit size	Applications
NBR1   Autophagy substrate NBR1 (affinity purified)	AS14 2805A	50 µg	WB
NPR1   Nonexpresser of PR genes 1	AS12 1854	50 µg	WB
Patatin	AS12 1842	200 µl	WB, IP, IL
Patatin (affinity purified)	AS12 1842A	50 µg	WB, IP, IL
PDR8   ABC transporter G family member 36	AS09 471	100 µl	ELISA, WB
PP2A   Serine/threonine protein phosphatase 2A 59 kDa regulatory subunit B' gamma isoform	AS13 2747	50 µg	IL, WB
PR-1   Pathogenesis-related protein 1	AS10 687	50 µl	WB
PR-10   Pathogenesis-related protein 10	AS13 2724	50 µl	WB
PR-2   GLU I   Class I beta-1,3-glucanase	AS07 208	2 mg	WB, IL
PR-2   Pathogenesis-related protein 2	AS12 2366	50 µl	WB
PR-3 / CHN   Class I chitinase	AS07 207	2 mg	IP, IL, WB
PR-4   Pathogenesis-related protein 4 (Arabidopsis thaliana)	AS12 2369	50 µl	WB
PRN2   Pirin-like protein	AS14 2794	50 µg	WB
SAM1-4   S-adenosylmethionine synthase	AS16 3148	50 µl	WB
TM2   Tobacco mosaic virus resistance-2	AS15 3062	50 µl	WB
UBQ11   Ubiquitin	AS08 307	50 µl	WB
UBQ11   Ubiquitin (affinity purified)	AS08 307A	50 µg	WB
ATG7 **	AS15 3061	50 µl	WB
BIK1   Botrytis-induced kinase 1 **	AS16 4030	50 µg	WB
CERK1   Chitin elicitor receptor kinase 1 **	AS16 4037	50 µg	WB
ICS1   Isochorismate synthase 1, chloroplastic **	AS16 4107	50 µg	WB
MKK1   Mitogen-activated protein kinase kinase 1 **	AS15 2904	200 µl	WB
MKK5   Mitogen-activated protein kinase kinase 5 **	AS15 2907	200 µl	WB
NPR1   Nonexpresser of PR genes 1 (other species) **	AS16 4108	50 µg	WB
PAD4   Phytoalexin deficient 4 **	AS13 2750	50 µg	WB
PR-4   Pathogenesis-related protein 4 **	AS14 2810	200 µg	WB
PR-5   Pathogenesis-related protein 5 **	AS15 2858	50 µl	WB
PR-5   Pathogenesis-related protein 5 (A.thaliana) **	AS12 2373	200 µg	WB
RPS4   Disease resistance protein RPS4 **	AS16 3992	50 µg	WB

## Environmental stress - Salt stress

Antibody name/Product name	Product number	Unit size	Applications
ACO1   Aconitase	AS09 521	100 µl	WB
AGO1   Argonaute 1   Blocking peptide	AS09 527P	100 µg	NeA
ALD   Fructose-1,6 bisphosphate aldolase	AS08 294	100 µl	WB
APase   Acid phosphatase	AS09 520	1 mg	WB, ELISA, IF, IHC
APase   Acid phosphatase, Biotin conjugated	AS09 541	1 ml	WB, ELISA, IF, IHC
BiP   Luminal-binding protein	AS09 481	50 µg	ELISA, IF, IG, WB
EIN2   Ethylene insensitive 2	AS12 1865	50 µg	WB
GAI   DELLA protein GAI	AS11 1631	50 µg	WB
GORK   Potassium channel GORK	AS14 2795	50 µg	WB
H+ATPase   Plasma membrane H+ATPase (chicken)	AS13 2671	50 µg	WB
H+ATPase   Plasma membrane H+ATPase	AS07 260	50 µl	IF, IL, WB
Na+/H+ antiporter, sodium/hydrogen exchanger	AS09 484	50 µl	ELISA, WB
PIP2;3   Aquaporin, plasma membrane intrinsic protein 2-3	AS09 506	100 µl	ELISA, WB, IG

## Environmental stress - Salt stress

Antibody name/Product name	Product number	Unit size	Applications
PIP2;7   Plasma membrane aquaporin (N-terminal)	AS09 469	100 µl	ELISA, WB
PIP2-1-7   Plasma membrane aquaporin isoforms 1-7 (C-terminal)	AS12 2110	100 µl	WB
Proline ELISA quantitation kit	AS16 3151	50 µl	WB
RGL2   RGA-like protein 2 (DELLA protein)	AS11 1803	50 µg	WB
RS1   Salt stress root protein RS1	AS16 3833	100 µl	WB
SAL1   Sal1 phosphatase	AS07 256	100 µl	WB
SAM1-4   S-adenosylmethionine synthase	AS16 3148	50 µl	WB
V-ATPase   Epsilon subunit of tonoplast H+ATPase	AS07 213	50 µl	IHC, WB
V-ATPase   Epsilon subunit of tonoplast H+ATPase	AS09 577	300 µl	WB
V-ATPase   Epsilon subunit of tonoplast H+ATPase (affinity purified)	AS09 577A	200 µg	WB
CBL   Calcineurin B-like protein **	AS16 4033	50 µl	WB
FAAH   Fatty acid amide hydrolase **	AS16 3972	50 µg	WB
HOS1   E3 ubiquitin-protein ligase HOS1 **	AS16 3970	50 µg	WB
ICE1   Inducer of CBF expression 1 **	AS16 3971	50 µg	WB
MKK1   Mitogen-activated protein kinase kinase 1 **	AS15 2904	200 µl	WB
MKK2   Mitogen-activated protein kinase kinase 2 **	AS15 2905	200 µl	WB
NCED3   9-cis-epoxycarotenoid dioxygenase NCED3 **	AS16 3964	50 µg	WB
PDF1   Plant defensin 1 **	AS16 3973	50 µg	WB

## Environmental stress - Wounding

Antibody name/Product name	Product number	Unit size	Applications
AHB2   Hemoglobin 2	AS13 2745	50 µl	WB
COI1   Coronate insensitive 1 (rabbit)	AS12 2637	50 µg	WB
COI1   Coronate insensitive 1 (mouse)	AS16 3844	100 µg	WB
GSNOR   S-nitrosoglutathione reductase	AS09 647	50 µl	WB
HRP   Horseradish peroxidase	AS16 3951	50 µl	ELISA, WB
HRP   Horseradish peroxidase, Affinity purified	AS09 549	1 mg	WB, ELISA, IF, IHC
LEA3   Late embryogenesis abundant protein	AS16 3845	50 µl	WB
NRT1.4   Nitrate transporter	AS09 473	100 µl	ELISA, WB
PPO   Polyphenol oxidase	AS10 1585	100 µl	WB

## Fermentation

Antibody name/Product name	Product number	Unit size	Applications
ADH/ALDH   Alcohol/acetaldehyde dehydrogenase (bacterial/algal)	AS10 748	200 µl	WB
FMR   Fumarate reductase	AS12 2618	200 µg	WB
HydA   Iron-hydrogenase HydA1/HydA2	AS09 514	100 µl	WB
HydA2   Iron-hydrogenase HydA2	AS09 600	100 µl	WB
MME4   Malic enzyme	AS12 2617	200 µg	WB
PFOR   Pyruvate oxidoreductase	AS07 275	200 µg	WB
PTA   Phosphate acetyltransferase	AS07 276	200 µg	WB
ADH/ALDH   Alcohol/acetaldehyde dehydrogenase (bacterial/algal)	AS10 748	200 µl	WB
FMR   Fumarate reductase	AS12 2618	200 µg	WB
HydA   Iron-hydrogenase HydA1/HydA2	AS09 514	100 µl	WB
HydA2   Iron-hydrogenase HydA2	AS09 600	100 µl	WB
MME4   Malic enzyme	AS12 2617	200 µg	WB
PFOR   Pyruvate oxidoreductase	AS07 275	200 µg	WB
PTA   Phosphate acetyltransferase	AS07 276	200 µg	WB



## Food proteins

Antibody name/Product name	Product number	Unit size	Applications
Acrylamid   Prop-2-enamide	AS13 2732	1 ml	IAC
Bromelain	AS09 552	10 mg	WB, ELISA,IF, IHC
Bromelain (affinity purified)	AS09 554	1 mg	WB, ELISA,IF, IHC
Caseins	AS15 2847	0.5 mg	ELISA, CGT, WB
Conglutin gamma   Lupin-specific globulin	AS08 335	50 µl	WB
Ficain   Ficin	AS09 550	10 mg	WB, ELISA,IF, IHC
Ficain   Ficin, Biotin conjugated	AS09 551	1 ml	WB, ELISA,IF, IHC
Peanut Agglutinin	AS15 2848	1 mg	ELISA, IAC
Peanut Ara h1, clone 17	AS16 3977	50 µg	ELISA
Peanut protein	AS09 566	100 µg	ELISA, WB
PPI   Papain	AS09 545	10 mg	WB, ELISA,IF, IHC
PPI   Papain (affinity purified)	AS09 547	1 mg	WB, ELISA,IF, IHC
Ricin (RTA subunit), clone MMA	AS09 648	200 µg	ELISA, IHC
Ricin (whole molecule), clone MMH	AS09 649	200 µg	ELISA, IHC
Sesame protein	AS09 568	100 µl	ELISA, WB
Soy protein	AS09 569	100 µg	ELISA, WB
Sporamin	AS10 697	100 µl	WB
Wheat gluten	AS09 571	100 µl	ELISA, WB

## Hormones - Abscisic acid

Antibody name/Product name	Product number	Unit size	Applications
ABI2   Abscisic acid insensitive 2	AS12 1871	50 µg	WB
14-3-3 GRF   General regulatory element	AS12 2119	50 µl	WB
ABA   Abscisic acid	AS06 195	100 µl	ELISA, IL
ABA   Abscisic acid (C1) (for IL)	AS09 446	200 µg	IF, IL
ABA   Abscisic acid ELISA quantitation kit	AS11 1748	200 µg	WB
ABA tracer (alkaline phosphatase conjugated)	AS10 726	1000 assays	WB
ABA-BSA   Abscisic acid BSA conjugate	AS11 1837	1 mg	IHC, ICC
ABI1   Abscisic acid insensitive 1	AS12 1861	50 µg	WB, IP
ABI5   Abscisic acid insensitive 5	AS12 1863	2 x 50 µg	WB
MYC2   Transcription factor MYC2	AS12 1869	50 µl	WB
PYR1   Abscisic acid receptor RCAR11	AS13 2634	50 µg	WB
SnRK2.2, SnRK2.3, SnRK2.6   Ser/Thr-protein kinase SnRK	AS14 2783	50 µg	WB
SRK2E   Ser/Thr-protein kinase SnRK2.6	AS13 2635	50 µg	WB, PdA, IP
ABF3   Abscisic acid-insensitive 5-like 6 **	AS13 2639	200 µg	WB
ABI4   Abscisic acid insensitive 4 **	AS16 3989	50 µg	WB
CPK-t2   Calcium-dependent protein kinase active site **	AS13 2667	µl	WB
VP1   Viviparous 1 (ABI3) **	AS13 2636	50 µg	WB
WRI1   Ethylene-responsive transcription factor WRI1 **	AS16 4105	50 µg	WB

## Hormones - Auxins

Antibody name/Product name	Product number	Unit size	Applications
ABP1   Auxin-binding protein 1 (maize)	AS16 3946	50 µl	WB
ABP1   Auxin-binding protein 1 (tomato)	AS16 3945	50 µl	WB
ABP4   Auxin-binding protein 4 (maize)	AS16 3947	50 µl	WB
CHS   Chalcone synthase	AS12 2615	50 µl	WB



## Hormones - Auxins

Antibody name/Product name	Product number	Unit size	Applications
IAA   Auxin ELISA quantitation kit	AS11 1749	200 µg	WB
IAA   Indole 3 acetic acid	AS06 193	100 µl	ELISA, IL
IAA   Indole-3-acetic acid (C1') (for IL)	AS09 445	200 µg	IL
IAA   Indole-3-acetic acid (N1) (for IL)	AS09 421	200 µg	IL
IAA tracer (alkaline phosphatase conjugated)	AS09 517	1000 assays	ELISA
IBA   Indole-3-butyric acid (rabbit)	AS13 2744	1 ml	ELISA, IAC
IBA   Indole-3-butyric acid (chicken)	AS15 3053	1 ml	ELISA, IAC
AUX1   Auxin transporter protein 1 (rabbit) **	AS16 3159	200 µg	WB
AUX1   Auxin transporter protein 1 (goat) **	AS16 3957	200 µg	WB
Auxin efflux carrier component **	AS11 1830	100 µg	WB
PIF4   Phytochrome interacting factor 4 (rabbit) **	AS16 3157	50 µg	WB
PIF4   Phytochrome interacting factor 4 (goat) **	AS16 3955	50 µg	WB
PIN15   Auxin efflux carrier component **	AS11 1828	100 µg	WB
PIN2   Auxin efflux carrier component 2 **	AS11 1838	100 µg	WB
PIN3   Auxin efflux carrier component 3 **	AS11 1839	100 µg	WB
PIN9   Auxin efflux carrier component 9 **	AS11 1791	100 µg	WB
TIR1   Transport inhibitor response 1 **	AS16 3963	0.1 mg	WB

## Hormones - Biosynthesis/regulations

Antibody name/Product name	Product number	Unit size	Applications
ACC   1-Aminocyclopropane-1-carboxylic acid	AS11 1800	200 µl	IG
ACC synthase 7   1-aminocyclopropane-1-carboxylate synthase 7	AS14 2774	100 µg	WB
CHS   Chalcone synthase	AS12 2615	50 µl	WB
COI1   Coronate insensitive 1	AS12 2637	50 µg	WB
EIN2   Ethylene insensitive 2	AS12 1865	50 µg	WB
GAI   DELLA protein GAI	AS11 1631	50 µg	WB
NPR1   Nonexpresser of PR genes 1	AS12 1854	50 µg	WB
RGA   DELLA protein RGA	AS11 1630	50 µg	WB
RGL2   RGA-like protein 2 (DELLA protein)	AS11 1803	50 µg	WB
SAM1-4   S-adenosylmethionine synthase	AS16 3148	50 µl	WB
SNE18   Rossmann-fold NAD(P)-binding domain-containing protein	AS12 2118	50 µl	WB
ABF3   Abscisic acid-insensitive 5-like 6 **	AS13 2639	200 µg	WB
Auxin efflux carrier component **	AS11 1830	100 µg	WB
DELLA protein RGL3 **	AS14 2804	200 µl	WB
HMT   Homocysteine S-methyltransferase **	AS16 3837	50 µl	WB
NPR1   Nonexpresser of PR genes 1 (other species) **	AS16 4108	50 µg	WB
RGA   DELLA protein RGA ( <i>oryza sativa</i> ) **	AS14 2796	50 µg	WB
RGL1   RGA-like protein 1 (DELLA protein) **	AS11 1802	200 µl	WB
Salicylate   4-aminosalicylic acid **	AS09 412	1 ml	ELISA, FPIA
SLR1   Rice DELLA protein **	AS15 2954	200 µl	WB

## Hormones - Brassinosteroids

Antibody name/Product name	Product number	Unit size	Applications
BAK1   Brassinosteroid insensitive 1-associated receptor kinase 1	AS12 1858	50 µg	IP, WB
BRI1   Brassinosteroid insensitive 1	AS12 1859	50 µg	WB, IP
BZR1   Brassinazole resistant 1	AS16 3219	50 µl	WB
BIN2   Brassinosteroid insensitive 2 **	AS16 3203	50 µg	WB
BZR2/BES1   Brassinazole resistant 2 **	AS16 3942	50 µl	WB



## Hormones - Cytokinins

Antibody name/Product name	Product number	Unit size	Applications
Cis-zeatin riboside   Cytokinin ELISA quantitation kit	AS12 1844	100 µg	WB
Cis-zeatin tracer (alkaline phosphatase conjugated)	AS16 4092	1000 assays	WB
Cytokinin   Cis-zeatin riboside (1mg)	AS09 419	1 mg	ELISA, RIA
Cytokinin   Cis-zeatin riboside (for IL)	AS09 431	200 µg	ICC
Cytokinin   Dihydrozeatin riboside (1mg)	AS09 416	1 mg	ELISA, RIA
Cytokinin   Dihydrozeatin riboside (for IL)	AS09 437	200 µg	IL
Cytokinin   Kinetin riboside (1 mg)	AS09 443	1 mg	ELISA, RIA
Cytokinin   Meta-topolin riboside (1 mg)	AS09 417	1 mg	ELISA, RIA
Cytokinin   Meta-topolin riboside (for IL)	AS09 440	200 µg	IL
Cytokinin   N6-benzyladenosine (1 mg)	AS09 425	1 mg	ELISA, RIA
Cytokinin   N6-benzyladenosine (for IL)	AS09 438	200 µg	IL
Cytokinin   N6-isopentenyladenosine (1 mg)	AS09 415	1 mg	ELISA, RIA
Cytokinin   N6-isopentenyladenosine (for IL)	AS09 435	200 µg	IL
Cytokinin   Ortho-topolin riboside (1 mg)	AS09 418	1 mg	ELISA, RIA
Cytokinin   Ortho-topolin riboside (for IL)	AS09 442	200 µg	IL
Cytokinin   Trans-zeatin riboside (1mg)	AS09 414	1 mg	ELISA, RIA
Cytokinin   Trans-zeatin riboside (for IL)	AS09 429	200 µg	IL
N6-benzyladenosine   Cytokinin ELISA quantitation kit	AS12 1846	100 µg	WB
N6-isopentenyladenosine   Cytokinin ELISA quantitation kit	AS12 1845	100 µg	WB
Trans-zeatin riboside   Cytokinin ELISA quantitation kit	AS11 1784	50 µl	WB
Trans-zeatin tracer (alkaline phosphatase conjugated)	AS16 4090	1000 assays	WB

## Hormones - Ethylene

Antibody name/Product name	Product number	Unit size	Applications
ACC   1-Aminocyclopropane-1-carboxylic acid	AS11 1800	200 µl	IG
ACC synthase 7   1-aminocyclopropane-1-carboxylate synthase 7	AS14 2774	100 µg	WB
EIN2   Ethylene insensitive 2	AS12 1865	50 µg	WB
SAM1-4   S-adenosylmethionine synthase	AS16 3148	50 µl	WB
ABI4   Abscisic acid insensitive 4 **	AS16 3989	50 µg	WB
CTR1   Constitutive triple response 1 **	AS16 3988	µg	WB
EIN3   Ethylene insensitive 3 **	AS12 1866	2 x 50 µg	WB
ETR1   Ethylene receptor 1 **	AS16 3987	µg	WB
HMT   Homocysteine S-methyltransferase **	AS16 3837	50 µl	WB

## Hormones - Gibberellins

Antibody name/Product name	Product number	Unit size	Applications
14-3-3 GRF   General regulatory element	AS12 2119	50 µl	WB
AtCCaP1   Vacuolar calcium-binding protein-related	AS09 483	100 µl	WB, ELISA
GA3   Gibberellic acid	AS06 194	100 µl	IL
GA3-BSA   Gibberellic acid BSA conjugate	AS10 933	1 mg	IHC, ICC
GAI   DELLA protein GAI	AS11 1631	50 µg	WB
GID1c   Gibberellin receptor GID1C	AS14 2800	50 µl	WB
GID2   F-BOX protein GID2 (SLEEPY 1)	AS13 2638	50 µg	WB
RGA   DELLA protein RGA	AS11 1630	50 µg	WB
RGL2   RGA-like protein 2 (DELLA protein)	AS11 1803	50 µg	WB
DELLA protein RGL3	AS14 2804	200 µl	WB
PIF3   Phytochrome interacting factor 3 (rabbit) **	AS16 3156	50 µg	WB
PIF3   Phytochrome interacting factor 3 (goat) **	AS16 3954	50 µg	WB

## Hormones - Gibberellins

Antibody name/Product name	Product number	Unit size	Applications
RGA   DELLA protein RGA **	AS14 2796	50 µg	WB
RGL1   RGA-like protein 1 (DELLA protein) **	AS11 1802	200 µl	WB
SLR1   Rice DELLA protein **	AS15 2954	200 µl	WB

## Hormones - Jasmonates

Antibody name/Product name	Product number	Unit size	Applications
COI1   Coronate insensitive 1 (rabbit)	AS12 2637	50 µg	WB
COI1   Coronate insensitive 1 (mouse)	AS16 3844	100 µg	WB
JA   Jasmonic acid	AS11 1799	0.5 mg	IL
JAZ1   Jasmonate ZIM-domain protein 1	AS13 2648	50 µg	WB
LEA3   Late embryogenesis abundant protein	AS16 3845	50 µl	WB
NPR1   Nonexpresser of PR genes 1	AS12 1854	50 µg	WB
JAR1   Jasmonic acid-amido synthetase JAR1 **	AS16 3688	50 µg	WB
NPR1   Nonexpresser of PR genes 1 (other species) **	AS16 4108	50 µg	WB

## Hormones - Salicylic acid

Antibody name/Product name	Product number	Unit size	Applications
EDS1   Enhanced disease susceptibility 1	AS13 2751	50 µg	WB
NPR1   Nonexpresser of PR genes 1	AS12 1854	50 µg	WB
BIK1   Botrytis-induced kinase 1	AS16 4030	50 µg	WB
CERK1   Chitin elicitor receptor kinase 1 **	AS16 4037	50 µg	WB
ICS1   Isochorismate synthase 1, chloroplastic **	AS16 4107	50 µg	WB
NPR1   Nonexpresser of PR genes 1 (other species) **	AS16 4108	50 µg	WB
RPS4   Disease resistance protein RPS4 **	AS16 3992	50 µg	WB
Salicylate   4-aminosalicylic acid **	AS09 412	1 ml	ELISA, FPIA

## Hormones - ELISA kits

Antibody name/Product name	Product number	Unit size	Applications
ABA   Abscisic acid ELISA quantitation kit	AS11 1748	200 µg	WB
Cis-zeatin riboside   Cytokinin ELISA quantitation kit	AS12 1844	100 µg	WB
IAA   Auxin ELISA quantitation kit	AS11 1749	200 µg	WB
N6-benzyladenosine   Cytokinin ELISA quantitation kit	AS12 1846	100 µg	WB
N6-isopentenyladenosine   Cytokinin ELISA quantitation kit	AS12 1845	100 µg	WB
Trans-zeatin riboside   Cytokinin ELISA quantitation kit	AS11 1784	50 µl	WB

## Mitochondria | Respiration

Antibody name/Product name	Product number	Unit size	Applications
ACO1   Aconitase	AS09 521	100 µl	WB
AOX   AOX positive control/quantitation standard	AS04 054S	120 µl	WB
AOX1   Alternative oxidase 1	AS06 152	100 µl	WB
AOX1/2   Plant alternative oxidase 1 and 2	AS04 054	50 µl	WB, IL
AtpB   Beta subunit of ATP synthase, chloroplastic + mitochondrial (chicken)	AS03 030	100 µl	WB, IL
AtpB   Beta subunit of ATP synthase, chloroplastic + mitochondrial (rabbit)	AS05 085	100 µl	BN-PAGE, IF, WB
Beta-CA1, beta-CA2   Carbonic anhydrase   mitochondrial   Chlamydomonas	AS11 1737	200 µl	WB, IF
COX11   Cytochrome c oxidase assembly protein	AS10 938	200 µl	WB
COXII   Cytochrome oxidase subunit II	AS04 053A	50 µg	BN-PAGE, WB
COXII   Cytochrome oxidase subunit II	AS04 052	100 µl	WB
COXIIb   Cytochrome oxidase subunit II b	AS06 151	50 µl	WB
Cyt c   Cytochrome c	AS08 343A	50 µg	WB
DHAR1   Dehydroascorbate Reductase 1	AS11 1746	200 µg	WB



## Mitochondria | Respiration

Antibody name/Product name	Product number	Unit size	Applications
FtsH10   ATP-dependent zinc metalloprotease FtsH10 (mitochondrial)	AS07 251	200 µl	WB, BN-PAGE, IP
FtsH1-11   ATP-dependent zinc metalloprotease FtsH1-11	AS11 1789	500 µl	BN-PAGE, WB
FtsH3 + FtsH10   ATP-dependent zinc metalloprotease FtsH3 + FtsH10 (mitochondrial)	AS07 204	200 µg	WB, BN-PAGE
FtsH4   ATP-dependent zinc metalloprotease FtsH4 (mitochondrial)	AS07 205	200 µg	WB
GDC-H   H protein of glycine decarboxylase complex (GDC)	AS05 074	50 µg	WB
GLDH   Galactono-1,4 lactone dehydrogenase	AS06 182	100 µl	WB
HSP23.5   Heat shock protein 23.5 (mitochondrial)	AS15 2979	50 µg	WB
ACO1   Aconitase	AS09 521	100 µl	WB
HSP23.6   Heat shock protein 23.6 (mitochondrial)	AS15 2980	50 µg	WB
HSP26.5   Heat shock protein 26.5 (mitochondrial)	AS15 2981	50 µg	WB
HSP70   Heat shock protein 70, mitochondrial	AS08 347	2 x 50 µg	WB
IDH   Isocitrate dehydrogenase	AS06 203A	50 µg	WB
L16   Mitochondrial ribosomal large subunit protein L16	AS15 3069	50 µl	WB
NAD3   NADH-ubiquinone oxidoreductase chain 3	AS16 3831	2 x 50 µl	WB
NAD6   NADH-ubiquinone oxidoreductase chain 6	AS15 2926	50 µg	WB
NAD-ME   Mitochondrial NAD-dependent malic enzyme	AS16 3932	50 µl	WB, IL, IP
NDPK   Nucleoside diphosphate kinase	AS08 302	50 µl	WB
RpoTm   DNA-directed mitochondrial RNA polymerase (RpoT1; mitochondrial NEP)	AS15 3078	100 µl	WB
S10   Mitochondrial ribosomal small subunit protein S10	AS15 3067	50 µl	WB
S4   Mitochondrial ribosomal small subunit protein S4	AS15 3068	50 µl	WB
SHMT   Serine hydroxymethyltransferase	AS05 075	200 µl	WB
Tom 9   Mitochondrial import receptor subunit TOM9	AS15 2902	50 µl	WB
UCP   Uncoupling protein	AS12 1850	200 µg	WB
VDAC1   Voltage-dependent anion-selective channel protein 1	AS07 212	50 µg	BN-PAGE, IL, WB
AtpB   Beta subunit of ATP synthase, mitochondrial **	AS16 3976	100 µl	IF, WB, BN-PAGE
GDH2   Glutamate dehydrogenase 2 **	AS16 4034	50 µl	WB
NADH   Cytochrome B5 reductase **	AS11 1795	100 µg	WB
RPS14 (mitochondrial) **	AS15 3063	100 µl	WB

## Membrane transport system - Endomembrane system

Antibody name/Product name	Product number	Unit size	Applications
ARF1   ADP-ribosylation factor 1	AS08 325	50 µl	IF, IG, WB
BiP   Lumenal-binding protein	AS09 481	50 µg	ELISA, IF, IG, WB
HDEL   Endoplasmic reticulum retention signal	AS10 683	100 µg	WB, IF, IG
KDEL   Endoplasmic reticulum retention signal	AS13 2665	50 µg	WB, IHC
KDEL   Endoplasmic reticulum retention signal, conjugated	see below	200 µg	WB, IHC

### KDEL antibody is available with the following direct conjugations

ALP (AS15 3011) - APC (AS15 3013) - ATTO 390 (AS15 3003) - ATTO488 (AS15 3004) - ATTO565 (AS15 3005) - ATTO 594 (AS15 3006) - ATTO 633 (AS15 3007) - ATTO 655 (AS15 3008) - ATTO 680 (AS15 3009) - ATTO 700 (AS15 3010) - Biotin (AS15 3014) FITC (AS15 3015) - HRP (AS15 3016) - Streptavidin (AS15 3017)

L13-1   60S ribosomal protein L13-1	AS09 478	100 µl	ELISA, WB
PIP (PIP1;1, PIP1;2, PIP1;3, PIP1;4, PIP1;5)   Aquaporins	AS09 487	50 µg	WB
RPS12   Ribosomal protein S12 (chloroplastic)	AS12 2114	50 µl	WB
RPS14   40S ribosomal protein S14-1	AS12 2111	100 µg	WB

## Membrane transport system - Endomembrane system

Antibody name/Product name	Product number	Unit size	Applications
Sec21p   Gamma subunit, COP vesicles	AS08 327	200 µl	WB, IF
SMT1   Sterol methyltransferase 1	AS07 266	200 µg	IL, WB
AtArf2   ADP ribosylation factor 2	AS09 476	100 µl	ELISA, WB
BiP   Lumenal-binding protein (chicken)	AS09 614	100 µg	WB, IF
BiP   Lumenal-binding protein (goat)	AS09 615	100 µg	WB
Clathrin heavy-chain 1,2	AS10 690	100 µg	WB, IL, IF
CNX1/2   CALNEXIN HOMOLOG 1/2	AS12 2365	50 µg	WB
GPXh   Glutathione peroxidase	AS15 2882	50 µg	WB
GST class-phi   Glutathione S tranferase	AS09 479	100 µl	ELISA, WB
GST1   Glutathione-S-transferase	AS15 2883	50 µg	WB
HDEL   Endoplasmic reticulum retention signal (25 µg)	AS10 683-25	25 µg	WB, IF, IG
L13-1   60S ribosomal protein L13-1	AS13 2650	200 µg	WB
RPL37   Ribosomal protein L37, cytoplasmic	AS12 2115	50 µl	WB
Sar1   Secretion-associated and Ras-related protein 1	AS08 326	200 µl	WB, IG
SIP1   Small basic intrinsic protein 1-1	AS09 495	100 µl	ELISA, WB
SIP2   Small basic intrinsic protein 2-1	AS09 496	100 µl	ELISA, WB
VPS26A   Vacuolar protein sorting 26A	AS13 2632	50 µl	WB
VPS29   Vacuolar protein sorting 29	AS13 2633	50 µl	WB
GRP-94 homolog   Endoplasmin homolog (SHD) **	AS13 2677	50 µg	WB

## Membrane transport system - Plasma membrane

Antibody name/Product name	Product number	Unit size	Applications
AKT1   Potassium channel AKT1	AS09 516	200 µg	WB
AtPCaP1   Arabidopsis thaliana plasma membrane cation-binding protein-1	AS10 931	100 µl	WB
Ca <sup>2+</sup> -ATPase   Calmodulin-stimulated calcium-ATPase	AS09 486	100 µl	WB, ELISA
GORK   Potassium channel GORK	AS14 2795	50 µg	WB
H+ATPase   Plasma membrane H+ATPase (chicken)	AS13 2671	50 µg	WB
H+ATPase   Plasma membrane H+ATPase	AS07 260	50 µl	IF, IL, WB
KC1   potassium channel KAT3	AS09 515	200 µg	WB
MIP1   Aquaporin, glycerol transport activity	AS15 2826	50 µg	WB, IG
PDR8   ABC transporter G family member 36	AS09 471	100 µl	ELISA, WB
PIP (PIP1;1, PIP1;2, PIP1;3, PIP1;4, PIP1;5)   Aquaporins	AS09 487	50 µg	WB
PIP1;1, PIP1;2, PIP1;3   Aquaporins	AS09 489	100 µl	ELISA, WB
PIP1;3   Aquaporin, plasma membrane intrinsic protein 1-3	AS09 504	100 µl	ELISA, WB
PIP1;3   Aquaporin, plasma membrane intrinsic protein 1-3	AS09 505	100 µl	ELISA, WB
PIP2;1   Aquaporin, plasma membrane intrinsic protein 2-1	AS09 507	100 µl	ELISA, WB
PIP2;1, PIP2;2, PIP2;3   Plasma membrane intrinsic protein 2-1,2-2,2-3	AS09 491	100 µl	ELISA, WB
PIP2;1+PIP2;2   Aquaporin PIP2;1+PIP2;2	AS09 488	100 µl	ELISA, WB
PIP2;2   Plasma membrane aquaporin 2b	AS09 490	100 µl	ELISA, WB
PIP2;3   Aquaporin, plasma membrane intrinsic protein 2-3	AS09 506	100 µl	ELISA, WB, IG
PIP2;5   Aquaporin, plasma membrane intrinsic protein 2-5	AS09 508	100 µl	ELISA, WB
PIP2;7   Plasma membrane aquaporin (N-terminal)	AS09 469	100 µl	ELISA, WB
PIP2-1-7   Plasma membrane aquaporin isoforms 1-7 (C-terminal)	AS12 2110	100 µl	WB
Sec6   Exocyst complex subunit	AS13 2686	50 µl	WB
Sec8   Exocyst complex component SEC8	AS13 2708	50 µg	WB
SLT2   Sodium sulfate transporter	AS07 244	200 µg	WB
PDCB1   Plasmodesmata callose-binding protein 1 **	AS16 3149	100 µl	WB





## Membrane transport system - Vacuolar membrane

Antibody name/Product name	Product number	Unit size	Applications
AtCCaP1   Vacuolar calcium-binding protein-related	AS09 483	100 µl	WB, ELISA
Ligand-gated ion channel 1.3	AS09 475	100 µl	ELISA, WB
MRP1, ABCC1   ABC transporter C family member 1	AS09 472	100 µl	ELISA, WB
MTP1   Vacuolar Zn <sup>2+</sup> /H <sup>+</sup> antiporter	AS09 485	100 µl	ELISA, WB
Na <sup>+</sup> /H <sup>+</sup> antiporter, sodium/hydrogen exchanger	AS09 484	50 µl	ELISA, WB
NRT1.4   Nitrate transporter	AS09 473	100 µl	ELISA, WB
TIP1   Tonoplast intrinsic protein 1-1	AS09 482	100 µl	ELISA, WB
TIP1;1, TIP1;2   Tonoplast intrinsic protein 1-1, 1-2 (gamma)	AS09 493	100 µl	ELISA, WB
TIP1;1, TIP1;2   Tonoplast intrinsic protein 1-1, 1-2 (gamma)	AS09 492	100 µl	ELISA, WB
TIP2   Tonoplast intrinsic protein 2;1, 2;2, 2;3	AS12 2619	200 µg	WB
TIP2;1 (delta)   Delta-VM23	AS09 494	100 µl	ELISA, WB
TIP2;1   Tonoplast intrinsic protein 2-1	AS09 509	100 µl	ELISA, WB
TIP2;2   Tonoplast intrinsic protein 2-2	AS09 510	100 µl	ELISA, WB
TIP2;2   Tonoplast intrinsic protein 2-2 (C-terminal)	AS09 511	100 µl	ELISA, WB
V-ATPase   Epsilon subunit of tonoplast H <sup>+</sup> ATPase	AS07 213	50 µl	IHC, WB
V-ATPase   Epsilon subunit of tonoplast H <sup>+</sup> ATPase-	AS09 577	300 µl	WB
V-ATPase   Epsilon subunit of tonoplast H <sup>+</sup> ATPase (affinity purified)	AS09 577A	200 µg	WB
V-ATPase, a   Vacuolar H <sup>+</sup> ATPase, subunit a	AS09 466	100 µl	ELISA, WB
V-ATPase, A   Vacuolar H <sup>+</sup> -ATPase subunit A	AS09 467	100 µl	ELISA, WB
V-ATPase, A   Vacuolar H <sup>+</sup> -ATPase subunit A	AS09 502	100 µl	ELISA, WB
V-ATPase, B   Vacuolar H <sup>+</sup> -ATPase subunit B	AS14 2775	50 µg	WB
V-ATPase, C   Vacuolar H <sup>+</sup> -ATPase, subunit C (16 kDa)	AS09 468	50 µg	WB
V-ATPase, D   Vacuolar H <sup>+</sup> -ATPase subunit D	AS09 497	100 µl	ELISA, WB
V-ATPase, H   Vacuolar H <sup>+</sup> -ATPase subunit H	AS09 499	100 µl	ELISA, WB
V-PPase   Vacuolar H <sup>+</sup> -pyrophosphatase	AS12 1849	50 µl	WB
TPC1   Two pore calcium channel protein 1 **	AS16 4032	50 µl	WB
V-ATPase, a1   Vacuolar H <sup>+</sup> -ATPase subunit a isoform 1 **	AS14 2822	100 µl	ELISA, WB

## Nitrogen metabolism

Antibody name/Product name	Product number	Unit size	Applications
Cat   Catalase (peroxisomal marker)	AS09 501	50 µl	WB
GDH1   Glutamate dehydrogenase 1	AS05 068	100 µl	WB, IL
GLN1 GLN2   GS1 GS2 glutamine synthetase global antibody	AS08 295	50 µl	WB
GLN2   GS2, chloroplastic form of glutamine synthetase	AS08 296	400 µl	WB
GlnA   Glutamine synthetase	AS01 018	50 µl	WB
GOGAT   Glutamine oxoglutarate aminotransferase	AS07 242	50 µl	WB
NifH   Nitrogenase iron protein	AS01 021A	200 µg	IF, IHC, WB
NodGS   Nodulin / glutamate-ammonia ligase-like protein	AS15 3030	50 µl	WB, IP, IF
NodGS   Nodulin / glutamate-ammonia ligase-like protein	AS15 3030A	50 µg	WB, IP, IF
NR   Nitrate reductase, assimilatory	AS08 310	50 µg	WB
NRT1.1   Nitrate transporter 1.1	AS12 2611	50 µg	WB, IL
NRT2.1   Nitrate transporter 2.1	AS12 2612	50 µg	WB
NtcA   Global nitrogen regulator	AS12 1873	200 µg	WB
Ornithine	AS09 598	100 µl	ELISA
Urease	AS09 559	10 mg	WB, ELISA, IF, IHC
Urease, Affinity purified	AS09 561	1 mg	WB, ELISA, IF, IHC
Urease, Biotin conjugated	AS09 560	1 ml	WB, ELISA, IF, IHC

## Photosynthesis - ATP synthase

Antibody name/Product name	Product number	Unit size	Applications
AtpA   Alpha subunit of ATP synthase, chloroplastic	AS08 304	100 µl	IP, WB
ATPase   ATP synthase, whole enzyme	AS08 370	100 µl	WB
AtpB   Beta subunit of ATP synthase, chloroplastic + mitochondrial (chicken)	AS03 030	100 µl	WB, IL
AtpB   Beta subunit of ATP synthase, chloroplastic + mitochondrial (rabbit)	AS05 085	100 µl	BN-PAGE, IF, WB
AtpC   Gamma subunit of ATP synthase, chloroplastic	AS08 312	100 µl	WB
AtpD   CF1 delta subunit of ATP synthase, affinity purified	AS10 1590	100 µl	WB
AtpD   CF1 delta subunit of ATP synthase	AS10 1591	100 µl	WB
AtpE   Epsilon subunit of ATP synthase	AS10 1586	100 µl	WB
AtpF   CF0I subunit of ATP synthase	AS10 1604	100 µl	WB
AtpG   ATPsynthase subunit II b', chloroplastic	AS09 457	100 µl	WB
AtpH   ATP synthase subunit c, chloroplastic	AS05 071	200 µl	WB
AtpH   ATP synthase subunit c, chloroplastic	AS09 591	100 µl	WB
AtpI   CFoIV subunit of ATP synthase	AS10 1583	100 µl	WB
CGL160   Conserved in green lineage 160	AS12 1853	50 µl	WB
CGL40	AS13 2641	50 µl	WB
PSA2   Photosystem I assembly factor 2	AS13 2654	50 µl	WB, IP
AtpB   Beta subunit of ATP synthase, mitochondrial **	AS16 3976	100 µl	IF, WB, BN-PAGE

## Photosynthesis - Biogenesis/architecture

Antibody name/Product name	Product number	Unit size	Applications
ARC5   Dynamin-like protein ARC5	AS13 2676	50 µg	WB
ARSA   Targeting of tail-anchored proteins	AS15 3083	50 µl	WB

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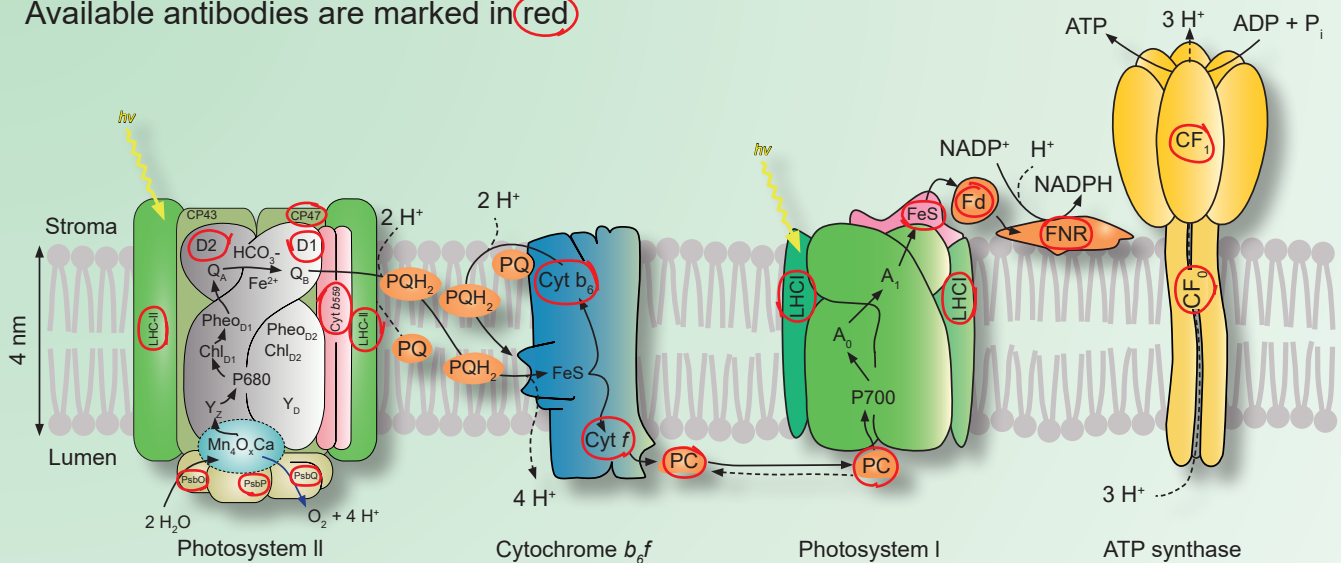
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## Thylakoid membrane

Available antibodies are marked in red



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### Photosynthesis - Biogenesis/architecture

Antibody name/Product name	Product number	Unit size	Applications
ClpR4   ATP-dependent Clp protease proteolytic subunit-related protein 4, chloroplastic	AS16 4057	50 µl	WB
ClpT1   ATP-dependent Clp protease ATP-binding subunit CLPT1, chloroplastic	AS16 4058	50 µl	WB
CURT1A   Curvature thylakoid 1A	AS08 316	200 µg	WB, 2D BN/SDS-PAGE
CYP38   Cyclophilin 38, peptidyl-prolyl cis-trans isomerase	AS10 1607	100 µl	WB
DRP5B   Dynamin related protein 5B	AS12 2634	50 µg	WB
GUN4   Regulatory subunit of Mg-chelatase	AS15 3090	50 µl	WB
MatK   Maturase K	AS13 2720	50 µl	WB
PAB   Protein in chloroplast atpase biogenesis	AS15 2833	50 µl	WB
PGL35   Plastoglobulin 35; FIB1a; FBN1a	AS06 116	200 µl	WB, ICC
RBP40   38 kDa RNA-binding protein	AS14 2820	50 µl	WB, IP
SVR4   Suppressor of variegation 4	AS13 2725	50 µl	WB
SVR4-like   Suppressor of variegation 4 - like	AS13 2726	50 µl	WB
TAB3   Nucleus-encoded factor involved in PsaB translation	AS15 3089	50 µl	WB
RPL33   50S ribosomal protein L33 (chloroplastic) **	AS16 4082	50 µg	WB
RPL33   50S ribosomal protein L33 (chloroplastic) **	AS14 2780	50 µg	WB
SRP43   Signal recognition peptide 43 **	AS12 2105	200 µg	WB

### Photosynthesis - Carotenoid metabolism

Antibody name/Product name	Product number	Unit size	Applications
IPP isomerase   Isopentyl pyrophosphate isomerase	AS13 2710	50 µl	WB
LCY   Lycopene beta-cyclase (chloroplastic)	AS15 3079	50 µl	WB
LUT1   Beta-carotene hydroxylase	AS15 3084	50 µl	WB
LUT5   beta-carotene hydroxylase	AS15 3085	50 µl	WB
LYC   Lycopene beta cyclase (chloroplastic)	AS13 2709	50 µl	WB

## Photosynthesis - Carotenoid metabolism

Antibody name/Product name	Product number	Unit size	Applications
NtrC   Thioredoxin reductase (TR/TRxR)	AS06 159	200 µg	WB
NtrC   Thioredoxin reductase (TR/TRxR)	AS07 243	200 µg	WB
ZEP   Zeaxanthin Epoxidase	AS08 289	50 µl	WB
ZEP   Zeaxanthin Epoxidase	AS15 3092	50 µl	WB
PSY   Phytoene synthase **	AS16 3991	50 µl	WB

## Photosynthesis - Chaperones/Transporters

Antibody name/Product name	Product number	Unit size	Applications
CGE1   Alfa-CGE1, chloroplastic GrpE homolog	AS06 176	100 µl	WB, IP
ClpB1  Chaperone protein ClpB1 (cyanobacterial)	AS16 4039	50 µl	WB
ClpB2   Chaperone protein ClpB2 (cyanobacterial)	AS16 4040	50 µl	WB
ClpB-P   ClpB3	AS09 459	200 µl	WB
ClpD   Chaperone protein ClpD, chloroplastic	AS16 4048	50 µl	WB
ClpP1   ATP-dependent Clp protease proteolytic subunit 1 (cyanobacterial)	AS16 4041	50 µl	WB
ClpP2   ATP-dependent Clp protease proteolytic subunit 2 (cyanobacterial)	AS16 4042	50 µl	WB
ClpP3   ATP-dependent Clp protease proteolytic subunit 3 (cyanobacterial)	AS16 4043	50 µl	WB
DnaK   Chloroplast stromal chaperone	AS07 270	200 µl	WB
LTP   Vesicle-inducing protein in plastids (VIPP1)	AS06 145	200 µl	WB
PAB   Protein in chloroplast atpase biogenesis	AS15 2833	50 µl	WB
Tic110   Chloroplast inner envelope membrane translocon complex	AS08 293	200 µl	WB
Tic40   Inner envelope membrane translocon complex protein (chloroplast)	AS10 709	50 µl	WB, IF
Toc159   Chloroplast outer envelope membrane translocon complex protein	AS07 239	50 µl	WB, IL
Toc33   Chloroplast outer envelope membrane translocon complex protein	AS07 236	50 µl	WB, IP
Toc34   Chloroplast outer envelope membrane translocon complex protein	AS07 235	50 µl	WB, ELISA, IP
Toc34   Chloroplast outer envelope membrane translocon complex protein	AS07 237	50 µl	WB, ELISA
Toc34   Chloroplast outer envelope membrane translocon complex protein	AS07 238	50 µl	WB
Toc75   Chloroplast outer envelope membrane translocon complex OEP75 protein	AS06 150	200 µl	WB
Toc75   Outer chloroplast membrane translocon complex protein	AS08 292	200 µl	WB
Toc75   Protein TOC75-3, chloroplastic, POTRA domain 1	AS08 345	200 µl	WB, FACS, IL
Toc75   Protein TOC75-3, chloroplastic, POTRA domain 3	AS08 351	200 µl	WB, FACS, IL

## Photosynthesis - Chlorophyll

Antibody name/Product name	Product number	Unit size	Applications
ACD1   Accelerated cell death 1	AS11 1783	50 µl	WB
CPX1   Coproporphyrinogen III oxidase, isoform 1	AS06 123	100 µl	WB
CPX2   Coproporphyrinogen III oxidase, isoform 2	AS05 081	100 µl	WB
CRD1   Cyanobacterial homolog of plant CHL27 cyclase	AS06 122	50 µl	WB
G4   Chlorophyll synthase (chloroplastic)	AS14 2793	50 µl	WB
GluTR   Glutamyl -tRNA reductase	AS10 689	200 µl	WB
GUN4   Regulatory subunit of Mg-chelatase	AS15 3090	50 µl	WB
HemC   Porphobilinogen-Deaminase (PBG)	AS08 375	200 µl	WB
HemF   Coproporphyrinogen III oxidase	AS07 226	200 µl	WB
HemH   Protoporphyrin ferrochelatase	AS07 228	200 µl	WB
HemH   Protoporphyrin ferrochelatase (cyanobacterial)	AS10 693	100 µl	WB
HemY   Protoporphyrinogen oxidase	AS07 227	200 µl	WB
NtrC   Thioredoxin reductase (TR/TRxR)	AS06 159	200 µg	WB
NtrC   Thioredoxin reductase (TR/TRxR)	AS07 243	200 µg	WB
POR   Protochlorophyllide oxidoreductase	AS05 067	50 µl	WB





## Photosynthesis - Electron transfer

Antibody name/Product name	Product number	Unit size	Applications
Cyt b6 / PetB   Thylakoid membrane cytochrome b6 protein, N terminal	AS03 034	100 µl	WB
Cyt b6/PetB   Thylakoid membrane cytochrome b6 protein	AS15 2878	100 µl	WB
Cyt c6   Thylakoid lumen cytochrome c6 protein	AS06 202	200 µl	WB
Cyt f   Cytochrome f protein (PetA) of thylakoid Cyt b6/f-complex	AS06 119	50 µl	WB
Cyt f   Cytochrome f protein (PetA) of thylakoid Cyt b6/f-complex	AS08 306	50 µl	WB, IG
Fd   Ferredoxin 1 (chloroplastic)	AS11 1757	200 µl	WB
FDX1   Ferredoxin	AS06 121	50 µl	WB
Fdx2   Ferredoxin 2	AS16 3114	50 µl	WB
Fdx3   Ferredoxin 3	AS07 224	200 µg	WB
Fdx6   Ferredoxin 6	AS07 223	200 µg	WB
FNR   Ferredoxin-NADP <sup>+</sup> -oxidoreductase	AS15 2909	50 µl	WB
NDC1   Alternative NAD(P)H-ubiquinone oxidoreductase C1 (chloroplastic/mitochondrial)	AS16 3931	50 µl	WB
NdhB   NAD(P)H-quinone oxidoreductase subunit 2 (chloroplastic)	AS13 2721	50 µl	WB
NdhF   NAD(P)H dehydrogenase subunit 5 (chloroplastic)	AS13 2711	50 µl	WB
NdhH   NAD(P)H-quinone oxidoreductase subunit H (chloroplastic)	AS13 2712	50 µl	WB
PC   Plastocyanin	AS06 141	50 µl	IG, WB
PetC   Rieske iron-sulfur protein of Cyt b6/f complex	AS08 330	50 µl	WB
PetC   Rieske iron-sulfur protein of Cyt b6/f complex, protein standard	AS08 330S	250 µl	WB
PGRL1   PGR5-like protein 1A (chloroplastic)	AS10 725	100 µl	WB
Pre-apoplastocyanin	AS06 118	200 µl	WB
PrxQ   Peroxiredoxin, thioredoxin reductase	AS05 093	200 µl	WB
PsbE   Alfa subunit of Cytochrome b559 of PSII	AS06 112	100 µl	WB
PTOX   Plastid terminal oxidase	AS16 3692	100 µl	WB
NdhB   NAD(P)H-quinone oxidoreductase subunit B (chloroplastic) **	AS16 4064	50 µl	WB
NdhH   NAD(P)H-quinone oxidoreductase subunit H (chloroplastic) **	AS16 4065	50 µl	WB
NdhS   NAD(P)H-quinone oxidoreductase subunit S (chloroplastic) **	AS16 4066	50 µl	WB
PGR5   Protn gradient regulation 5 **	AS16 3985	50 µg	IP, WB

## Photosynthesis - GreenCut

Antibody name/Product name	Product number	Unit size	Applications
CGL160   Conserved in green lineage 160	AS12 1853	50 µl	WB
CGL40	AS13 2641	50 µl	WB
CGL78   YCF54	AS10 936	200 µl	WB
CNfu1   NifU-like protein 1 (chloroplastic)	AS13 2642	50 µl	WB
PSA2   Photosystem I assembly factor 2	AS13 2654	50 µl	WB, IP
PSB33   Rieske (2Fe-2S) domain-containing protein	AS12 1852	50 µl	WB
RIQ1   Reduced induction of non-photochemical quenching 1	AS15 2835	50 µg	WB
SNE18   Rossmann-fold NAD(P)-binding domain-containing protein	AS12 2118	50 µl	WB
VDR1   Violaxanthin de-epoxidase-related protein	AS12 2117	50 µl	WB
CGLD27B (At5g11840) **	AS14 2762	µl	WB
CPLD11 **	AS10 937	200 µl	WB



## Photosynthesis - Kinases

Antibody name/Product name	Product number	Unit size	Applications
Hik29 sensor histidine kinase	AS10 1600	100 µl	WB
STN7   Serine/threonine-protein kinase STN7 (chloroplastic)	AS10 1611	50 µg	WB
STN8   Serine/threonine-protein kinase STN8 (chloroplastic)	AS10 1601	50 µg	WB
STT7   Serine/threonine-protein kinase STT7 (chloroplastic)	AS15 3080	50 µl	WB
TAK1   Serine/threonine protein kinase TAK1	AS10 1612	100 µl	WB
BSK6   Protein kinase protein with tetratricopeptide repeat domain (At3g54030) **	AS11 1793	100 µg	WB
CK2 alpha   Casein kinase 2 subunit alpha **	AS16 3212	50 µg	WB
CK2 beta   Casein kinase 2 subunit beta **	AS16 3213	50 µg	WB
cpCK2   Casein kinase II subunit alpha (chloroplastic) **	AS16 3211	50 µg	WB

## Photosynthesis - LHC

Antibody name/Product name	Product number	Unit size	Applications
95 kDa Lcm (phycobilisome - to- thylakoid core linker with phycocyanobilin chromophore)	AS08 281	200 µl	WB
APC   Allophycocyanin alpha and beta	AS08 277	200 µl	WB, IL
b-PE   Phycoerythrobilin	AS08 279	200 µl	WB
B-PE   Phycoerythrobilin and phycourobilin	AS08 280	200 µl	WB
HliA   High light inducible protei	AS10 1616	100 µl	WB
HliD   High light inducible protein	AS10 1610	100 µl	WB
Lhc1   PS 1 light harvesting holo-complex	AS08 282	200 µl	WB
Lhca1   PSI type I chlorophyll a/b-binding protein	AS01 005	200 µl	WB
Lhca2   PSI type II chlorophyll a/b-binding protein	AS01 006	200 µl	WB
Lhca3   PSI type III chlorophyll a/b-binding protein	AS01 007	200 µl	WB
Lhca4   PSI type IV chlorophyll a/b-binding protein	AS01 008	200 µl	WB
Lhca5   PSI type V chlorophyll a/b-binding protein	AS05 082	200 µl	WB
Lhcb1   LHCII type I chlorophyll a/b-binding protein	AS01 004	50 µg	WB
Lhcb1   LHCII type I chlorophyll a/b-binding protein ( <i>Arabidopsis</i> specific)	AS09 522	100 µg	WB
Lhcb1-P   LHCII type I chlorophyll a/b-binding protein, phosphorylated	AS13 2704	25 µg	WB
Lhcb2   LHCII type II chlorophyll a/b-binding protein	AS01 003	200 µl	WB, IP
Lhcb2-P   LHCII type II chlorophyll a/b-binding protein, phosphorylated	AS13 2705	25 µg	WB
Lhcb3   LHCII type III chlorophyll a/b-binding protein	AS01 002	200 µl	WB
Lhcb4   CP29 (Lhcb4) homolog, <i>Chlamydomonas</i>	AS06 117	100 µl	WB
Lhcb4   CP29 (Lhcb4) homolog, <i>Ostreococcus tauri</i>	AS09 512	200 µl	WB
Lhcb4   CP29 chlorophyll a/b binding protein of plant PSII	AS04 045	200 µl	WB
Lhcb5   CP26 (Lhcb5) homolog, <i>Chlamydomonas</i>	AS09 407	50 µl	WB
Lhcb5   CP26 (Lhcb5) homolog, <i>Ostreococcus tauri</i>	AS09 513	200 µl	WB
Lhcb5   CP26 chlorophyll a/b-binding protein of plant PSII	AS01 009	200 µl	WB, IHC
LHCb9   Light-harvesting complex	AS15 3088	50 µl	WB
Lhcbm5   Chlorophyll a-b binding protein of LHCII	AS09 408	50 µl	WB
LHCSR1	AS14 2819	50 µl	WB
LHCSR1 ( <i>Physcomitrella patens</i> )	AS15 3081	50 µl	WB
LHCSR3	AS14 2766	50 µl	ELISA, WB
LHL4   LHC-like protein 4	AS07 250	200 µl	WB
R-PC   R-phycocyanin	AS08 278	200 µl	WB
Exon4b **	AS15 2986	µl	WB
Lhcb6   CP24 chlorophyll a/b-binding protein of plant PSII **	AS01 010	50 µl	WB
Lhcb7 **	AS15 2939	µl	WB
Lhcb7 ( <i>Arabidopsis</i> ) **	AS15 2938	µl	WB



## Photosynthesis - Light acclimation

Antibody name/Product name	Product #	Unit size	Applications
CURT1A   Curvature thylakoid 1A	AS08 316	200 µg	WB, 2D BN/ SDS-PAGE
Elip   Early light induced protein	AS06 147A	100 µg	WB
Elip2   Early light inducible protein 2	AS03 036	200 µl	WB
HliA   High light inducible protein	AS10 1616	100 µl	WB
Lhcb1   LHCII type I chlorophyll a/b-binding protein	AS01 004	50 µg	WB
Lhcb1   LHCII type I chlorophyll a/b-binding protein ( <i>Arabidopsis</i> specific)	AS09 522	100 µg	WB
Lhcb1-P   LHCII type I chlorophyll a/b-binding protein, phosphorylated	AS13 2704	25 µg	WB
Lhcb2   LHCII type II chlorophyll a/b-binding protein	AS01 003	200 µl	WB, IP
Lhcb2-P   LHCII type II chlorophyll a/b-binding protein, phosphorylated	AS13 2705	25 µg	WB
PGRL1   PGR5-like protein 1A, chloroplastic	AS10 725	100 µl	WB
RIQ1   Reduced induction of non-photochemical quenching 1	AS15 2835	50 µg	WB
STN7   Serine/threonine-protein kinase STN7, chloroplastic	AS10 1611	50 µg	WB
STN8   Serine/threonine-protein kinase STN8, chloroplastic	AS10 1601	50 µg	WB
STT7   Serine/threonine-protein kinase STT7, chloroplastic	AS15 3080	50 µl	WB
VDE   Violaxanthin de-epoxidase	AS15 3091	50 µl	WB
VDR1   Violaxanthin de-epoxidase-related protein	AS12 2117	50 µl	WB
ZEP   Zeaxanthin Epoxidase	AS08 289	50 µl	WB
ZEP   Zeaxanthin Epoxidase	AS15 3092	50 µl	WB
PBCP   Photosystem II core phosphatase **	AS16 4085	50 µg	WB
PPH1/TAP38   Protein phosphatase 1 **	AS16 4084	50 µg	WB
PGR5   Protn gradient regulation 5 **	AS16 3985	50 µg	IP, WB

## Photosynthesis - Proteases

Antibody name/Product name	Product #	Unit size	Applications
ClpC   Chloroplastic form of HSP100	AS01 001	100 µl	WB, IP, IHC
ClpP1   ATP-dependent Clp protease proteolytic subunit 1, chloroplastic	AS16 4049	50 µl	WB
ClpP3   ATP-dependent Clp protease proteolytic subunit 3, chloroplastic	AS16 4050	50 µl	WB
ClpP4   ATP-dependent Clp protease proteolytic subunit 4, chloroplastic	AS16 4051	50 µl	WB
ClpP5   ATP-dependent Clp protease proteolytic subunit 5, chloroplastic	AS16 4052	50 µl	WB
ClpP6   ATP-dependent Clp protease proteolytic subunit 6, chloroplastic	AS16 4053	50 µl	WB
ClpP6   Chloroplast ClpP6 proteolytic subunit	AS13 2655	50 µl	WB
ClpR1   ATP-dependent Clp protease proteolytic subunit-related protein 1, chloroplastic	AS16 4054	50 µl	WB
ClpR2   ATP-dependent Clp protease proteolytic subunit-related protein 2, chloroplastic	AS16 4055	50 µl	WB
ClpR3   ATP-dependent Clp protease proteolytic subunit-related protein 3, chloroplastic	AS16 4056	50 µl	WB
ClpR4   ATP-dependent Clp protease proteolytic subunit-related protein 4, chloroplastic	AS16 4057	50 µl	WB
ClpT1   ATP-dependent Clp protease ATP-binding subunit CLPT1, chloroplastic	AS16 4058	50 µl	WB
Deg1   Chloroplastic DegP-type serine protease 1	AS07 246	360 µg	WB
Deg2   Chloroplastic DegP-type serine protease 2	AS10 1581	200 µl	WB
Deg5   Protease Do-like 5, chloroplastic	AS10 703	200 µl	WB
Deg8   Protease Do-like 8, chloroplastic	AS14 2767	50 µl	WB
DegP7   Protease Do-like 7	AS11 1756	200 µl	WB
FtsH1 + FtsH5   ATP-dependent zinc metalloprotease FtsH1 + FtsH5 (chloroplastic)	AS16 3930	50 µl	WB
FtsH2 + FtsH8   ATP-dependent zinc metalloprotease FtsH2 + FtsH8 (chloroplastic)	AS16 3929	50 µl	WB
FtsH6   ATP-dependent zinc metalloprotease FtsH6 (chloroplastic)	AS05 094A	2x100 µg	WB
FtsH9   ATP-dependent zinc metalloprotease FtsH9 (chloroplastic)	AS06 130	2x200 µg	WB
HhoA   Protease HhoA (Sll1427; Cyanobase) (100 ul)	AS10 1619	100 µl	WB

## Photosynthesis - Proteases

Antibody name/Product name	Product #	Unit size	Applications
HhoB   Protease HhoB (SlI1679; Cyanobase)	AS10 1620	100 µl	WB
HtrA   Putative serine protease	AS10 1602	100 µl	WB
pClpP   Chloroplastic ATP-dependent Clp protease proteolytic subunit 1	AS15 3077	100 µl	WB
PPIase CYP37   peptidyl-prolyl cis-trans isomerase CYP37, chloroplastic	AS10 1589	100 µl	WB
slI0408   Putative thylakoid lumen PPIase	AS10 1594	100 µl	WB
SppA1   Signal peptide peptidase (higher plants)	AS10 1613	100 µl	WB
SppA2   Signal peptide peptidase (cyanobacterial)	AS10 1624	100 µl	WB
slr1239   PntA **	AS15 2910	100 ul	WB

## Photosynthesis - PSI (Photosystem I)

Antibody name/Product name	Product number	Unit size	Applications
Hcf101   High chlorophyll fluorescence phenotype protein	AS06 163	200 µl	WB, IL
PsaA   PSI-A core protein of photosystem I	AS06 172	50 µl	IG, WB
PsaB   PSI-B core subunit of photosystem I	AS10 695	50 µl	WB
PsaC   PSI-C core subunit of photosystem I	AS10 939	50 µl	WB
PsaD   PSI-D subunit of photosystem I	AS09 461	200 µl	WB, IP
PsaE   PSI-E subunit of photosystem I	AS04 047	100 µl	WB
PsaE   PSI-E subunit of photosystem I	AS08 324A	50 µg	WB
PsaF   PSI-F subunit of photosystem I	AS06 104	200 µl	WB
PsaG   PSI-G subunit of photosystem I	AS04 048	100 µl	WB, IG
PsaG   PSI-G subunit of photosystem I, Chlamydomonas	AS06 144	200 µl	WB
PsaH   PSI-H subunit of photosystem I	AS06 105	200 µl	WB
PsaH   PSI-H subunit of photosystem I, Chlamydomonas	AS06 143	200 µl	WB
PsaK   PSI-K subunit of photosystem I	AS04 049	100 µl	WB
PsaL   PSI-L subunit of photosystem I	AS06 108	200 µl	WB
PsaN   PSI-N subunit of photosystem I	AS06 109	200 µg	WB
PsaO   PSI-O subunit of photosystem I	AS04 050	100 µl	WB
TAB3   Nucleus-encoded factor involved in PsaB translation	AS15 3089	50 µl	WB
Ycf3   Photosystem I assembly protein ycf3	AS07 273	200 µl	WB
Ycf4   Photosystem I assembly protein ycf4	AS07 274	200 µl	WB

## Photosynthesis - PSII (Photosystem II)

Antibody name/Product name	Product number	Unit size	Applications
BBY   PSII-enriched membranes	AS16 3979	100 mg	see web
CP43'   IsiA homolog of plant CP43	AS06 111	200 µg	WB
CYP38   Cyclophilin 38, peptidyl-prolyl cis-trans isomerase (100 ul)	AS10 1607	100 µl	WB
CYP38   Cyclophilin 38, peptidyl-prolyl cis-trans isomerase (300 ul)	AS10 1618	300 µl	WB
Psb29   Thylakoid membrane formation 1, THF1	AS07 240	200 µg	WB, IP
PsbA   D1 protein of PSII, C-terminal	AS05 084	50 µl	WB
PsbA   D1 protein of PSII, C-terminal	AS01 016	100 µl	WB
PsbA   D1 protein of PSII, DE-loop	AS10 704	50 µl	WB
PsbA   D1 protein of PSII, N-terminal	AS11 1786	200 µl	WB
PsbA   D1 protein of PSII, phosphorylated	AS13 2669	50 µg	WB
PsbB   CP47 protein of PSII	AS04 038	50 µl	WB
PsbC   CP43 protein of PSII	AS11 1787	50 µl	WB
PsbD   D2 protein of PSII	AS06 146	50 µl	WB
PsbE   Alfa subunit of Cytochrome b559 of PSII	AS06 112	100 µl	WB
PsbF   Beta subunit of Cytochrome b559 of PSII	AS06 113	200 µl	WB
PsbH   Small subunit H of PSII	AS06 157	100 µl	WB, IP



## Photosynthesis - PSII (Photosystem II)

Antibody name/Product name	Product number	Unit size	Applications
PsbI   Small subunit I of PSII (cyanobacterial)	AS10 692	200 µl	WB
PsbI   Small subunit I of PSII	AS06 158	200 µl	WB
PsbN   Photosystem II reaction center protein N	AS14 2786	50 µl	WB
PsbO   33 kDa of the oxygen evolving complex (OEC) of PSII	AS06 142-33	50 µg	WB
PsbO   33 kDa of the oxygen evolving complex (OEC) of PSII	AS05 092	100 µl	IHC, IP, WB
PsbO1   33 kDa of the oxygen evolving complex (OEC) of PSII	AS14 2824	50 µl	WB, IP
PsbO2   33 kDa of the oxygen evolving complex (OEC) of PSII	AS14 2825	50 µl	WB, IP
PsbP   23 kDa protein of the oxygen evolving complex (OEC) of PSII	AS06 142-23	260 µg	WB
PsbP   23 kDa protein of the oxygen evolving complex (OEC) of PSII	AS08 305	100 µl	WB
PsbP   23 kDa protein of the oxygen evolving complex (OEC) of PSII	AS06 167	100 µl	WB
PsbP-like protein (sll1418)   cyanobacterial	AS10 682	200 µl	WB
PsbQ   16 kDa protein of the oxygen evolving complex (OEC) of PSII	AS06 142-16	200 µl	WB
PsbR   10 kDa protein of PSII	AS05 059	100 µl	WB
PsbS   22 kDa Lhc-like PSII protein (chicken)	AS03 032	100 µl	WB
PsbS   22 kDa Lhc-like PSII protein (rabbit)	AS09 533	50 µl	WB
PsbW   Small subunit W of PSII	AS05 060	100 µl	WB
PsbX   Small subunit X of PSII	AS05 066	200 µl	WB
PsbY   Small subunit Y of PSII	AS06 114	200 µl	WB
PsbZ   ycf9 protein of PSII	AS06 115	200 µl	WB
Tlp18.3   Thylakoid lumen 18.3 kDa protein	AS08 369	200 µl	WB
PsbTn   Tn protein of PSII **	AS06 171	200 µl	WB

## Photosynthesis - RUBISCO/Carbon metabolism

Antibody name/Product name	Product number	Unit size	Applications
CAH3   Carbonic anhydrase	AS05 073	100 µl	WB, IF, IG
CPN60A1   Chaperonin 60 subunit alpha 1, chloroplastic	AS12 2613	50 µl	WB
CsoS1A/B/C   Major carboxysome shell protein 1A, AB, 1C	AS14 2760	50 µg	WB
EPSP synthase   3-phosphoshikimate 1-carboxyvinyltransferase (chloroplastic)	AS14 2782	50 µl	WB
EPSP synthase   3-phosphoshikimate 1-carboxyvinyltransferase (chloroplastic)	AS16 3119	50 µl	WB
Lci5   Low carbon dioxide induced protein number 5	AS05 090	100 µl	WB, IHC
PEPC   Phosphoenolpyruvate carboxylase	AS09 458	50 µg	IL, WB
PEPCK   PEP carboxykinase	AS07 241	200 µl	WB
PRK ribulose-5-P-kinase   Phosphoribulokinase	AS07 257	50 µg	WB
RA   Rubisco activase	AS10 700	50 µl	WB
RAF2   Rubisco accumulation factor 2	AS13 2729	50 µl	WB
RbcL   Rubisco large subunit, form I	AS01 017	50 µl	WB, IL
RbcL   Rubisco large subunit, form I and form II	AS03 037	50 µl	WB, TP, IF, IG
RbcL II   Rubisco large subunit, form II	AS15 2955	50 µl	WB
RbcS   Rubisco small subunit (SSU)	AS07 259	50 µl	WB
RbcS   Rubisco small subunit (SSU) (affinity purified)	AS07 259A	50 µg	ELISA, WB
Rubisco   557 kDa hexadecamer	AS07 218	200 µl	WB, IL
Rubisco ELISA quantitation kit	AS15 2994	50 µl	WB
SBPase   Sedoheptulose-1,7-bis phosphatase	AS15 2873	50 µg	WB
TKL1   Transketolase (chloroplastic)	AS15 2903	50 µl	WB, IP
Trxf1/2   Thioredoxin F1/F2 (chloroplastic)	AS14 2808	50 µg	WB
TrxM1/M2   Thioredoxin M1/M2 (chloroplastic)	AS14 2809	50 µg	WB
IctB   Putative bicarbonate transporter	AS13 2702	µl	WB
PEPC1   Phosphoenolpyruvate carboxylase isoform 1 **	AS15 2993	50 µg	WB, IL

## Photosynthesis - Sucrose metabolism

Antibody name/Product name	Product number	Unit size	Applications
BAM1   Beta amylase 1 (chloroplastic)	AS15 2895	50 µl	WB
cFBPase   Cytosolic fructose-1,6-bisphosphatase (cytoplasm marker in photosynthetic tissues)	AS04 043	100 µl	WB
GAPC1/2   Glyceraldehyde-3-phosphate dehydrogenase	AS15 2894	50 µg	WB
GAPC2   Glyceraldehyde-3-phosphate dehydrogenase	AS13 2727	50 µl	WB
SPS   Sucrose phosphate synthase (maize)	AS06 185	50 µl	WB, IL
SPS   Sucrose phosphate synthase, global	AS03 035A	200 µg	WB
SUS1   Sucrose synthase 1	AS15 2830	50 µl	WB
UAGPase   UDP-GlcNAc pyrophosphorylase	AS14 2829	50 µl	WB
UGPase   UDP-glucose pyrophosphorylase (cytoplasm marker)	AS05 086	50 µl	IL, WB
UGPase   UDP-glucose pyrophosphorylase (cytoplasm marker) (Hordeum vulgare)	AS14 2813	50 µl	WB
SUS4   Sucrose synthase 4 **	AS11 1796	100 µg	WB
SUS4   Sucrose synthase 4 **	AS13 2748	100 µl	WB

## Plant pathogens - Fungi

Antibody name/Product name	Product number	Unit size	Applications
Aspergillus niger, Serum (0.1 ml)	AS11 1636	0.1 ml	ELISA
Aspergillus niger, Total IgG (0.2 mg)	AS11 1718	0.2 mg	ELISA
Ergotamine, Serum (0.1 ml)	AS11 1729	0.1 ml	ELISA
Ergotamine, Total IgG (0.2 mg)	AS11 1650	0.2 mg	ELISA
Gaeumannomyces graminis, Serum (0.1 ml)	AS11 1666	0.1 ml	ELISA
Gaeumannomyces graminis, Total IgG (0.2 mg)	AS11 1688	0.2 mg	ELISA
Ramularia collo-cygni, Serum (0.1 ml)	AS11 1676	0.1 ml	ELISA
Ramularia collo-cygni, Total IgG (0.2 mg)	AS11 1725	0.2 mg	ELISA
SOBIR1   Suppressor of BIR1 **	AS16 3204	50 µg	IP, WB
SOBIR1   Suppressor of BIR1 **	AS16 3959	50 µg	IP, WB

## Plant pathogens - Herbicides

Antibody name/Product name	Product number	Unit size	Applications
Dinitro aromates, Serum (0.1 ml)	AS11 1643	0.1 ml	ELISA
Dinitro aromates, Total IgG (0.2 mg)	AS11 1665	0.2 mg	ELISA
Triazine, Serum (0.1 ml)	AS11 1637	0.1 ml	ELISA
JAR1   Jasmonic acid-amido synthetase JAR1 **	AS16 3688	50 µg	WB

## Plant pathogens - Viruses

Antibody name/Product name	Product number	Unit size	Applications
2b protein [Cucumber mosaic virus]	AS16 3981	50 µl	WB
2b protein [Tomato aspermy virus]	AS16 3982	50 µl	WB
p15 [Peanut clump virus]	AS16 3983	50 µl	WB
TYLCV C1   Tomato yellow leaf curl virus coat protein C1	AS15 3055	150 µl	IF
TYLCV C2   Tomato yellow leaf curl virus coat protein C2	AS15 3056	150 µl	IF
TYLCV C3   Tomato yellow leaf curl virus coat protein C3	AS15 3057	150 µl	IF
TYLCV C4   Tomato yellow leaf curl virus coat protein C4	AS15 3058	150 µl	IF
TYLCV CP   Tomato yellow leaf curl virus coat protein 30 kDa	AS15 3048	150 µl	WB, IF
TYLCV V2   Tomato yellow leaf curl virus coat protein V2	AS15 3059	150 µl	WB, IL





## Protein modifications

Antibody name/Product name	Product number	Unit size	Applications
P-Tyr   Phosphotyrosine	AS10 705	100 µg	WB, IP, IF, IHC
RD   N-terminal arginylation	AS15 3050A	2x25 µg	Dot
RE   N-terminal arginylation	AS15 3050	2x50 µg	Dot
UBQ11   Ubiquitin	AS08 307	50 µl	WB
UBQ11   Ubiquitin (affinity purified)	AS08 307A	50 µg	WB
P-Ser   Phosphoserine	AS15 2874	100 µg	WB

## Protein standards - quantitation

Antibody name/Product name	Product number	Unit size	Applications
AOX   AOX positive control/quantitation standard	AS04 054S	120 µl	WB
AtpB   Positive control/quantitation standard	AS03 030S	250 µl	WB
CP43'   IsiA homolog of plant CP43 positive control/quantitation standard	AS10 111S	250 µl	WB
FtsH2   FtsH2 positive control/quantitation standard	AS11 1789S	250 µl	WB
GlnA   Glutamine synthetase positive control/quantitation standard	AS09 018S	250 µl	WB
HSP70   Positive control/quantitation standard	AS08 371S	50 µl	WB
NifH   Positive control/quantitation standard	AS01 021S	250 µl	WB
PEPC   Phosphoenolpyruvate carboxylase positive control/quantitation standard	AS09 458S	100 µl	WB
PetC   Rieske iron-sulfur protein of Cyt b6/f complex, protein standard	AS08 330S	250 µl	WB
PR-1   Positive control/quantitation standard	AS10 687S	100 µl	WB
PsaC   Positive control/quantitation standard	AS04 042S	100 µl	WB
PsbA   D1 positive control/quantitation standard	AS01 016S	50 µg	WB
PsbD   D2 protein of PSII positive control/quantitation standard	AS09 146S	250 µl	WB
RbcL   Rubisco positive control/quantitation standard	AS01 017S	100 µl	WB
RbcL II   Rubisco form II positive control/quantitation standard	AS15 2955S	50 µg	WB
SBP   Sedoheptulose-1,7-bis phosphatase positive control/quantitation standard	AS15 2873S	50 µg	WB

## Toxins - Insecticides

Antibody name/Product name	Product number	Unit size	Applications
Chlorpyrifos	AS13 2736	1 ml	ELISA, IAC
Chlorpyrifos OVA-conjugated (antigen)	AS13 2736C	1 mg	ELISA
Fenitrothion	AS13 2738	1 ml	ELISA, IAC
Pirimiphos	AS13 2743	0.5 mg	ELISA, IAC

## Toxins - Marine toxins

Antibody name/Product name	Product number	Unit size	Applications
STX   Saxitoxin, Serum (0.1ml)	AS11 1663	0.1 ml	ELISA
STX   saxitoxin, Total IgG (0.5 mg)	AS11 1647	0.2 mg	ELISA

## Toxins - Mycotoxins

Antibody name/Product name	Product number	Unit size	Applications
Aflatoxin B1	AS15 2851	0.5 mg	ELISA, CGT
Aflatoxin B1, Serum (0.1 ml)	AS11 1662	0.1 ml	ELISA
Aflatoxin B1, Total IgG (0.5 mg)	AS11 1733	0.5 mg	ELISA
Aflatoxin M1	AS14 2801	50 µg	ELISA
Aflatoxin M1, Serum (0.1 ml)	AS11 1668	0.1 ml	ELISA
Aflatoxin M1, Total IgG (0.5 mg)	AS11 1680	0.5 mg	ELISA
Aflatoxin M1, Total IgG (0.5 mg)	AS15 2827	0.5 mg	ELISA
Aflatoxin M1, Total IgG (0.5 mg)	AS15 2828	0.5 mg	ELISA

## Toxins - Mycotoxins

Antibody name/Product name	Product number	Unit size	Applications
Benzophenone	AS15 2854	0.5 mg	ELISA, CGT
Deoxynivalenol, BSA conjugated (0.5 mg) (antigen)	AS16 3962	0.5 mg	IF, WB
Deoxynivalenol, BSA conjugated (1 mg) (antigen)	AS16 3839	1 mg	WB
DON   Deoxynivalenol, Total IgG (0.2 mg)	AS11 1711	0.2 mg	ELISA
DON   Deoxynivalenol (monoclonal)	AS16 3843	1 mg	ELISA, IAC, Rapid Test
DON   Deoxynivalenol, Serum (0.1 ml)	AS11 1654	0.1 ml	ELISA
Ochratoxin A	AS15 2852	0.5 mg	ELISA, ID
Ochratoxin A, (0.1 mg trial sample) (antigen)	AS16 4103	0.1 mg	WB
Ochratoxin A, Serum (0.1 ml)	AS11 1671	0.1 ml	ELISA
Ochratoxin A, Total IgG (0.5 mg)	AS11 1695	0.5 mg	ELISA
Patulin, Serum (0.1 ml)	AS11 1732	0.1 ml	ELISA
Patulin, Total IgG (0.2 mg)	AS11 1645	0.2 mg	ELISA
Rubellin, Serum (0.1 ml)	AS11 1652	0.1 ml	ELISA
Rubellin, Total IgG (0.2 mg)	AS11 1703	0.2 mg	ELISA
Total Aflatoxins	AS15 2850	1 mg	ELISA, IG, IAC
Vomitoxin	AS15 2988	1 mg	ELISA, IG, IAC
ZA   Zearalenone, Total IgG (0.5 mg)	AS11 1742	0.5 mg	ELISA
ZEA   Zearalenone, Serum (0.1 ml)	AS11 1736	0.1 ml	ELISA
Zearalenone	AS15 2853	0.5 mg	ELISA, IG, IAC
Zearalenone (0.1 mg trial sample) (antigen)	AS16 4102	0.1 mg	WB

## Toxins - Plant toxins

Antibody name/Product name	Product number	Unit size	Applications
Hellebrin	AS11 1740	100 µl	ELISA
Hellethionin	AS10 1626	100 µl	ELISA, WB

## Toxins - Other compounds

Antibody name/Product name	Product number	Unit size	Applications
Acrylamid   Prop-2-enamide	AS13 2732	1 ml	IAC
Alkylphenols (nonylphenol; octylphenol)	AS13 2733	0.5 ml	ELISA, IAC
Atrazine   2-chloro-4-(ethylamino)-6-(isopropylamino)-s-triazine	AS13 2734	0.5 ml	ELISA, IAC
Bisphenol A	AS16 4029	0.1 ml	ELISA
Clofibrate	AS13 2737	0.5 ml	ELISA, IAC
Glyphosate	AS13 2739	1 ml	ELISA, IAC
Ibuprofen	AS13 2740	0.5 ml	ELISA, IAC
MTBE   Methyl-tert-butylether	AS13 2741	1 ml	IAC
Naproxen	AS13 2742	0.5 ml	ELISA, IAC

## Rapid Western Blotting

Antibody name/Product name	Product number	Unit size	Applications
Agrisera IncuBlocker (rabbit, 2x100 ml)	AS16 3111	2 x 100 ml	ELISA
Agrisera IncuBlocker (rabbit, 2x1L)	AS16 3111-1L	2 x 1 L	ELISA
Agrisera IncuBlocker (rabbit, 2x20 ml trial pack)	AS16 3111-20	2 x 20 ml	ELISA
Agrisera IncuBlocker Wash Buffer (100 ml)	AS16 3696	100 ml	ELISA
Agrisera IncuBlocker Wash Buffer (1L)	AS16 3696-1L	1 L	ELISA
Agrisera IncuBlocker (chicken) **	AS16 3214	2 x 50 ml	ELISA
Agrisera IncuBlocker (mouse) **	AS16 3215	2 x 50 ml	ELISA



## Detection reagents - ECL reagents

Antibody name/Product name	Product number	Unit size	Applications
Agrisera ECL kit (Bright/Enhanced)	AS16 ECL-SN	2 x 50 ml	WB
Agrisera ECL kit (Bright/Enhanced) (10 ml trial pack)	AS16 ECL-SN-10	2 x 5 ml	WB
Agrisera ECL kit (Bright/Enhanced) (1L)	AS16 ECL-SN-1L	2 x 500 ml	WB
AgriseraECL Bright (10 ml trial pack)	AS16 ECL-N-10	2 x 5 ml	WB
AgriseraECL Bright (100 ml)	AS16 ECL-N-100	2 x 50 ml	WB
AgriseraECL Bright (1L)	AS16 ECL-N-1L	2 x 500 ml	WB
AgriseraECL SuperBright (10 ml trial pack)	AS16 ECL-S-10	2 x 5 ml	WB
AgriseraECL SuperBright (100 ml)	AS16 ECL-S-100	2 x 50 ml	WB

## Detection reagents - ELISA

Antibody name/Product name	Product number	Unit size	Applications
Agrisera HRP-Conjugate/Protein Stabilizer (100 ml)	AS15 HRPstab-100	100 ml	ELISA
Agrisera HRP-Conjugate/Protein Stabilizer (10 ml)	AS15 HRPstab	10 ml	ELISA
AgriseraTMB Diluent (100 ml)	AS15 Diluent	100 ml	ELISA
AgriseraTMB HRP Substrate (10 ml)	AS15 TMB-HRP-10	10 ml	ELISA
AgriseraTMB HRP Substrate (100 ml)	AS15 TMB-HRP	100 ml	ELISA
AgriseraTMB HRP Substrate (1L)	AS15 TMB-HRP-1L	1L	ELISA
Streptavidin HRP Conjugated, for ELISA	AS15 2860	1 mg	ELISA

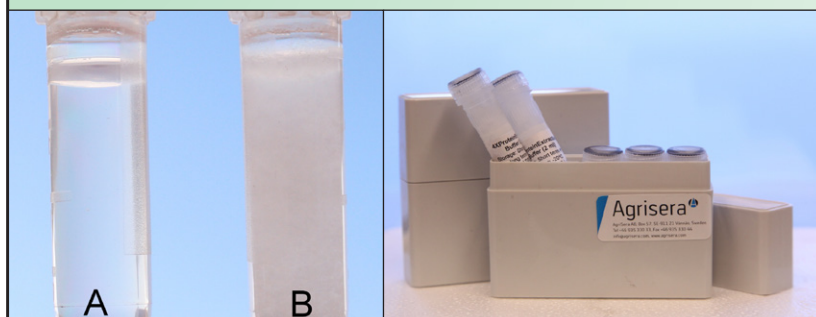
## Bacterial/Fungal antibodies

Antibody name/Product name	Product number	Unit size	Applications
ADH/ALDH   Alcohol/acetaldehyde dehydrogenase, bacterial/algal	AS10 748	200 µl	WB
ATPase AAA2 domain	AS11 1754	200 µl	WB
AtpB   Beta subunit of ATP synthase, chloroplastic + mitochondrial (rabbit)	AS05 085	100 µl	BN-PAGE, IF, WB
beta-1,4-glucosidase (hyperthermophilic enzyme)	AS15 3093	50 µl	WB
Beta-lactamase	AS15 2846	0.5 mg	ELISA, WB, CGT
Candidia albicans	IMS01-140-328	100 µl	ELISA
CBP   CREB-binding protein homolog	AS13 2730	50 µg	WB
CoQ7   Coenzyme Q biosynthesis protein 7	AS05 076	200 µl	WB
CpxA   Conjugative plasmid expression	AS13 2653	50 µl	WB
CsoS1A/B/C   Major carboxysome shell protein 1A, AB, 1C	AS14 2760	50 µg	WB
DNA Damage (8-OHdG) ELISA kit	AS15 2887	50 µg	WB
DnaJ (Yersinia pseudotuberculosis)	AS15 3072	50 µl	WB
DnaK	AS15 3073	50 µl	WB
DON   Deoxynivalenol (Vomitoxin) ELISA kit	AS16 4028	50 µg	WB
Endo-beta-1,4 xylanase (hyperthermophilic enzyme)	AS15 3087	50 µl	WB
Enterobacter cloacae	IMS01-139-329	100 µl	ELISA
ExoS   Exoenzyme S	AS05 056	100 µl	WB
Fe-hydrogenase beta subunit (hyperthermophilic enzyme)	AS15 3086	50 µl	WB
FnCel5A   Endo-beta-1,4 glucanase (hyperthermophilic enzyme)	AS15 3094	50 µl	WB
FtsZ   Procaryotic cell division GTPase	AS10 715	50 µl	WB, IF
GTA MCP   Gene Transfer Agent (GTA) major capsid protein (MCP)	AS08 365	200 µl	WB
HDEL   Endoplasmic reticulum retention signal	AS10 683	100 µg	WB, IF, IG

## Bacterial/Fungal antibodies

Antibody name/Product name	Product number	Unit size	Applications
Helicobacter pylori	AS01 020	200 µl	WB ELISA, IL
ICL   Isocitrate lyase	AS10 713	200 µl	WB
KatG   Catalase peroxidase (HPI), cyanobacterial	AS08 374	200 µl	WB
KDEL   Endoplasmic reticulum retention signal	AS13 2665	50 µg	WB, IHC
KDEL   Endoplasmic reticulum retention signal, conjugated	see below	200 µg	WB, IHC
<b>KDEL antibody is available with the following direct conjugations</b>			
ALP (AS15 3011) - APC (AS15 3013) - ATTO 390 (AS15 3003) - ATTO488 (AS15 3004) - ATTO565 (AS15 3005) - ATTO 594 (AS15 3006) - ATTO 633 (AS15 3007) - ATTO 655 (AS15 3008) - ATTO 680 (AS15 3009) - ATTO 700 (AS15 3010) - Biotin (AS15 3014) FITC (AS15 3015) - HRP (AS15 3016) - Streptavidin (AS15 3017)			
Lacl   Lactose operon repressor	AS16 3144	100 µg	WB
Methylated Lysine	AS15 3021	400 µl	WB, IHC, IP, ELISA
Mycoplasma bovis, Serum (100 ul)	AS11 1672	0.1 ml	ELISA
Mycoplasma bovis, Total IgG (0.5 mg)	AS11 1724	0.5 mg	ELISA
NpHR   halorhodopsin	AS12 1851	50 µg	WB, IF
Penicillin G, Serum (0.1ml)	AS11 1642	0.1 ml	ELISA
PEPC   Phosphoenolpyruvate carboxylase	AS09 458	50 µg	IL, WB
Peptostreptococcus magnus Protein L	IMS02-136-331	100 µl	WB
Pseudomonas aeruginosa	IMS01-133-332	100 µl	WB
RFA   Baker's yeast replication factor A	AS07 214	50 µl	WB, IP, ChIP
Rnr1   Ribonucleoside-diphosphate reductase large subunit	AS16 3639	50 µl	WB
Rnr3   Ribonucleoside-diphosphate reductase large chain 2	AS09 574	250 µg	WB
RPS12   Ribosomal protein S12 (chloroplastic)	AS12 2114	50 µl	WB
RPS14   40S ribosomal protein S14-1	AS12 2111	100 µg	WB
Sml1   Suppressor of Mec1 lethality	AS10 847	50 µl	WB
Staphylococcus aureus	AS15 2849	0.5 mg	ELISA, IAC, WB
Staphylococcus aureus	AS15 2849	0.5 mg	ELISA, IAC, WB
Staphylococcal Protein A	IMS02-008-333	100 µl	WB, ELISA
Streptococcal Protein G	IMS02-109-334	100 µl	WB
SurA   SurA	AS10 798	100 µl	WB
Tylosin, Serum (0.1 ml)	AS11 1641	0.1 ml	ELISA
Tylosin, Total IgG (0.2 mg)	AS11 1685	0.2 mg	ELISA
Yersinia pseudotuberculosis	AS05 057	200 µl	ICC, IF
AtpB   Beta subunit of ATP synthase, mitochondrial **	AS16 3976	100 µl	IF, WB, BN-PAGE
PEPC1   Phosphoenolpyruvate carboxylase isoform 1 **	AS15 2993	50 µg	WB, IL

## Protein Extraction Buffer (PEB)



A - Agrisera PEB - protein extraction buffer  
B - SDS containing protein extraction buffer

Agrisera PEB, 5x2ml.

An extraction buffer for quantitative isolation of total soluble/membrane protein from various tissues, optimized for subsequent western blot detection. The use of the anionic detergent LDS together with usage of a bead beater or the combination of sonication and freeze/thaw has been shown to increase the quantity of solubilized and non-degraded proteins when compared to other methods of cell disruption.

Product number: AS08 300



## **\*\*Under development**

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### **Appendix - applications**

<u>Antibody Column</u>	<u>AC</u>	<u>ImmunoLocalization</u>	<u>IL</u>
<u>Blue Native PAGE</u>	<u>BN-PAGE</u>	<u>ImmunoPrecipitation</u>	<u>IP</u>
<u>Dot blot</u>	<u>Dot</u>	<u>Immunosensor Detection</u>	<u>ID</u>
<u>Enzyme-Linked Immunosorbent Assay</u>	<u>ELISA</u>	<u>Immuno-spin Trapping</u>	<u>IT</u>
<u>Flow cytometry</u>	<u>FACS</u>	<u>indirect ELISA</u>	<u>i-ELISA</u>
<u>ImmunoAffinity Chromatography</u>	<u>IAC</u>	<u>Neutralization Assay</u>	<u>NeA</u>
<u>ImmunoCytoChemistry</u>	<u>ICC</u>	<u>RadiImmunoAssay</u>	<u>RIA</u>
<u>ImmunoFluorescence</u>	<u>IF</u>	<u>Tissue Printing</u>	<u>TP</u>
<u>ImmunoGold</u>	<u>IG</u>	<u>Western Blot</u>	<u>WB</u>
<u>ImmunoHistoChemistry</u>	<u>IHC</u>		

### **Appendix - conjugation**

**ALP** - Alkaline phosphatase conjugated  
**HRP** - Horseradish peroxidase conjugated  
**FITC** - Fluorescein-5-isothiocyanate conjugated  
**TRITC** - Tetramethylrhodamine-5-isothiocyanate  
**DyLight®** - Fluorescent conjugates for western blot and immunolocalization studies



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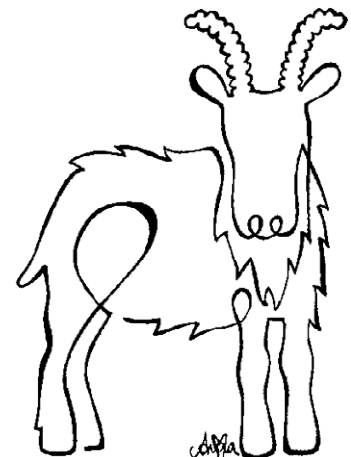
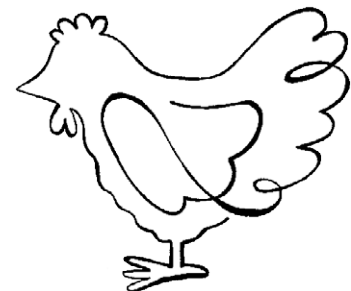
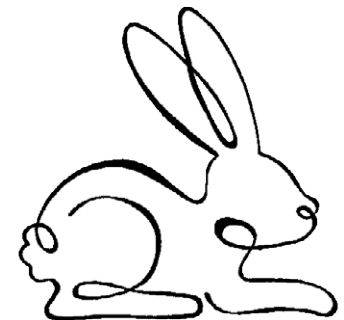
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