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Product no AS07 259

Anti-RbcS | Rubisco small subunit (SSU)

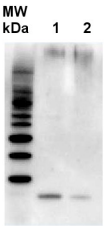
Product information

Immunogen	KLH-conjugated synthetic peptide derived from all known sequences of RbcS from monocots and dicots including RuBisCO small subunit 1A UniProt: P10795,TAIR: AT1G67090, and 1B of *Arabidopsis thaliana* UniProt: P10796 At5g38430
Host	Rabbit
Clonality	Polyclonal
Purity	Serum
Format	Lyophilized
Quantity	50 µl
Reconstitution	For reconstitution add 50 µl of sterile water
Storage	Store lyophilized/reconstituted at -20°C; once reconstituted make aliquots to avoid repeated freeze-thaw cycles. Please remember to spin the tubes briefly prior to opening them to avoid any losses that might occur from material adhering to the cap or sides of the tube.

Application information

Recommended dilution	1 : 5000 (WB)
Expected | apparent MW	20 | 15 kDa
Confirmed reactivity	*Arabidopsis thaliana, Brassica napus, Chlamydomonas reinhardtii, Cucumis sativus, Cucurbita pepo, Cyanthobasis fruticulosa, Hordeum vulgare, Malus domestica, Nicotiana tabacum, Petrosimonia nigdeensis, Salsola grandis, Salsola tragus, Solanum lycopersicum*
Predicted reactivity	Algae, *Camellia oleifera, Erythranthe guttata, Flaveria bidentis, Flaveria sonorensis, Glycine max, L, Marchantia paleacea, Musa acuminata, Nicotiana benthamiana, Nicotiana tabacum, Oryza sativa, Petunia hybrida, Polianthes tuberosa, Populus deltoides, Triticum aestivum, Solanum melongena, Solanum tuberosum, Zea mays* Species of your interest not listed? Contact us
Not reactive in	Cyanobacteria
Additional information	This product can be sold containing ProClin if requested
Selected references	Lim et al (2022). Arabidopsis guard cell chloroplasts import cytosolic ATP for starch turnover and stomatal opening. Nat Commun. 2022 Feb 3;13(1):652. doi: 10.1038/s41467-022-28263-2. PMID: 35115512; PMCID: PMC8814037. Mazur et al. (2021) The SnRK2.10 kinase mitigates the adverse effects of salinity by protecting photosynthetic machinery. Plant Physiol. 2021 Dec 4;187(4):2785-2802. doi: 10.1093/plphys/kiab438. PMID: 34632500; PMCID: PMC8644180. Bernau et al. (2021) Precision analysis for the determination of steric mass action parameters using eight tobacco host cell proteins,Journal of Chromatography A,Volume 1652,2021,462379,ISSN 0021-9673,https://doi.org/10.1016/j.chroma.2021.462379. (https://www.sciencedirect.com/science/article/pii/S0021967321005033) Ma et al. (2020). An ortholog of the Vasa intronic gene is required for small RNA-mediated translation repression in Chlamydomonas reinhardtii. Proc Natl Acad Sci U S A. 2020 Jan 7;117(1):761-770. doi: 10.1073/pnas.1908356117. Akmouche et al. (2019). Do nitrogen- and sulphur-remobilization-related parameters measured at the onset of the reproductive stage provide early indicators to adjust N and S fertilization in oilseed rape (Brassica napus L.) grown under N- and/or S-limiting supplies? Planta. 2019 Dec;250(6):2047-2062. doi: 10.1007/s00425-019-03284-2.

Application example



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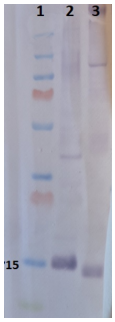
2 µg of total protein from *Arabidopsis thaliana* **(1)**, *Hordeum vulgare* **(2),** extracted with Agrisera PEB extraction buffer (AS08 300) Samples were diluted with 1X sample buffer (NuPAGE LDS sample buffer (Invitrogen) supplemented with 50 mM DTT and heat at 70°C for 5 min and keept on ice before loading. Protein samples were separated on 4-12% Bolt Plus gels, LDS-PAGE and blotted for 70 minutes to PVDF using tank transfer. Blots were blocked immediately following transfer in 2% blocking reagent or 5% non-fat milk dissolved in 20 mM Tris, 137 mM sodium chloride pH 7.6 with 0.1% (v/v) Tween-20 (TBS-T) for 1h at room temperature with agitation. Blots were incubated in the primary antibody at a dilution of 1: 10 000 (in blocking reagent) for 1h at room temperature with agitation. The antibody solution was decanted and the blot was rinsed briefly twice, and then washed 1x15 min and 3x5 min with TBS-T at room temperature with agitation. Blots were incubated in secondary antibody (goat anti-rabbit IgG horse radish peroxidase conjugated, recommended secondary antibody AS09 602, Agrisera) diluted to 1:25 000 in blocking reagent for 1h at room temperature with agitation. The blots were washed as above. The blot was developed for 5 min with chemiluminescent detection reagent according the manufacturers instructions. Images of the blots were obtained using a CCD imager (VersaDoc MP 4000) and Quantity One software (Bio-Rad). Exposure time was 25 seconds.

Courtesy of Mayura Manerkar, Mount Alison University, Canada



5 µg/well of total protein extracted freshly from *Arabidopsis thaliana (2)* and *Zea Mays (3)* denatured with 4XLDS at 70°C for 5 min. Protein were separated on NuPAGE Bis-Tris SDS gel and blotted 1h to Invitrogen PVDF (pore size of 0.2 um), using wet transfer. Blot was blocked with 5% milk 4°C/ON with agitation. Blot was incubated in the primary antibody at a dilution of 1: 1 000 for 1h/RT with agitation in TBS-T Blocking. The antibody solution was decanted, and the blot was rinsed briefly, then washed 3 times for 5 min in TBS-T at RT with agitation. Blot was incubated in Agrisera matching secondary antibody (AS09 607) diluted to 1:2500 in TBS-T Blocking for 30min/RT with agitation. The blot was washed as above and developed for 2 min with Agrisera BCIP/NBT plus.