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This product is **for research use only** (not for diagnostic or therapeutic use) **contact: support@agrisera.com**

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Product no AS08 296

Anti-GLN2 | GS2, chloroplastic form of glutamine synthetase

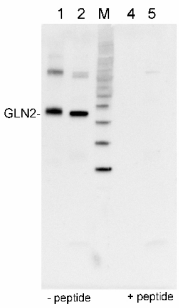
Product information

Immunogen	KLH-conjugated synthetic peptide which is a part of part of the glutamine synthetase/guanido kinase superfamily catalytic region chosen from various available sequences, including *Arabidopsis thaliana* GLN2, UniProt: Q43127, TAIR: AT5G35630
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.
Additional information	This product can be sold contacining proclin if requested

Application information

Recommended dilution	1 : 5000 on 0.5-5 µg protein/lane detection (WB)
Expected | apparent MW	47 | 44-45 kDa
Confirmed reactivity	*Arabidopsis thaliana, Nicotiana tabacum, Oryza sativa, Pisum sativum, Spinacia oleracea*
Predicted reactivity	*Brassica napus, Diplotaxis tenuifolia,Eruca versicaria, Glycine max, Hordeum vulgare, Medicago truncatula, Pinus sylvestris, Phaseolus vulgaris, Physcomitrium patens, Populus sp., Triticum aestivum, Zea mays* Species of your interest not listed? Contact us
Not reactive in	Diatoms
Selected references	Gilad et al. (2025). Nitrogen Assimilation Plays a Role in Balancing the Chloroplastic Glutathione Redox Potential Under High Light Conditions.Plant Cell Environ. 2025 Jan 9.doi: 10.1111/pce.15368. Chang et al. (2023). Chloroplast import motor subunits FtsHi1 and FtsHi2 are located on opposite sides of the inner envelope membrane. PNAS. 2023 Sep 12;120(37):e2307747120.doi: 10.1073/pnas.2307747120. Epub 2023 Sep 5. Hertle et al. (2021). Horizontal genome transfer by cell-to-cell travel of whole organelles. Science Advances. Volume 7. 01 Jan 2021 : eabd8215 DOI: 10.1126/sciadv.abd8215 Ancin et al. (2021) Overexpression of thioredoxin m in chloroplasts alters carbon and nitrogen partitioning in tobacco. J Exp Bot. 2021 Jun 22;72(13):4949-4964. doi: 10.1093/jxb/erab193. PMID: 33963398; PMCID: PMC8219043. Chen et al. (2018). TIC236 links the outer and inner membrane translocons of the chloroplast. Nature. 2018 Dec;564(7734):125-129. doi: 10.1038/s41586-018-0713-y. Tamburino et al. (2017). Chloroplast proteome response to drought stress and recovery in tomato (Solanum lycopersicum L.). BMC Plant Biol. 2017 Feb 10;17(1):40. doi: 10.1186/s12870-017-0971-0. Dixit (2015). Sulfur alleviates arsenic toxicity by reducing its accumulation and modulating proteome, amino acids and thiol metabolism in rice leaves. Sci Rep. 2015 Nov 10;5:16205. doi: 10.1038/srep16205.

Application example



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0.5 µg of protein from Arabidopsis thaliana total leaf fraction **(1)**, **5 µg of protein** from*Spinacia oleracea* chlorplast enriched fraction **(2)**, molecular weight markers (MagicMark™,Invitrogen) **(M),** the same samples as in 1 and 2 but after peptide neutralisation assay, e.g. incubation of the antibody with 100 mM excess of peptide used to elicit andt-GLN2 antibody **(4,5)**, extracted with PEB (**AS08 300**), were separated on **4-12%** NuPage (Invitrogen) **LDS-PAGE** and blotted 1h to **PVDF** (Millipore). Filters were blocked 1h with 2% low-fat **milk powder** in TBS-T (0.1% TWEEN 20) and probed with anti-GLN2 antibody (AS08 296, **1:5 000**, 1h) and secondary anti-rabbit (**1:20000,** 1 h) antibody (HRP conjugated) in TBS-T containing 2% low fat milk powder. Antibody incubations were followed by washings in TBS-T. All steps were performed at RT with agitation. Blots were developed for 5 min with chemiluminescent detection reagent according the manufacturers instructions. Images of the blots were obtained using a CCD imager (FluorSMax, Bio-Rad) and Quantity One software (Bio-Rad).