

This product is for research use only (not for diagnostic or therapeutic use)

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Product no AS09 481 BiP | Lumenal-binding protein (rabbit antibody)

Product information

Immunogen	<u>KLH</u> -conjugated synthetic peptide derived from <i>Arabidopsis thaliana</i> BiP proteins: BiP1 <u>At5g28540_Q9LKR3</u> , BiP2 <u>At5g42020</u> <u>F4K007</u> , BiP3 <u>At1g09080</u> <u>Q8H1B3</u>
Host	Rabbit
Clonality	Polyclonal
Purity	Immunogen affinity purified serum in PBS pH 7.4.
Format	Lyophilized
Quantity	50 μg
Reconstitution	For reconstitution add 50 μ l 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 : 8000 (ELISA), 1 : 600 (IF), 1 : 2000 (WB)
Expected apparent MW	73.5 80 kDa
Confirmed reactivity	Anacardium occidentale, Arabidopsis thaliana, Brassica napus,Chara australis R.Br, Chlamydomonas reinhardtii, Cucumis sativus, Mangifera indica, Moniliophthora perniciosa, Nicotiana benthamiana, Nicotiana tabacum, Raphanus sativa L. Tokinashi-daikon, Olea europaea, Oryza sativa, Picea abies, Pistachio sp., Physcomitrium patens, Schinus molle, Spinacia oleracea, Solanum lycopersicum, Solanum tuberosum, Triticum aestivum, Zea mays
Predicted reactivity	Arabis alpina, Capsella rubella, Capsicum annuum, Citrus clementina, Citrus sinsensis, Eucalyptus grandis, Glycine max, Hordeum vulgare, Isatis tincorina, Prunus persica, Triticum aestivium, Petunia hybrida, Picea sitcHensis, Populus trichocarpa, Ricinus comminus, Vitis vinifera Species of your interest not listed? Contact us
Not reactive in	Ostrancoccus tauri. Schizosaccharomyces nombe
Additional information	Protein or membrane sample should be treated at 70°C for 10 min before loading on the gel, This antibody has so far not worked in IP
Selected references	 <u>Miloro</u> et al. (2024). Barley AGO4 proteins show overlapping functionality with distinct small RNA-binding properties in heterologous complementation. Plant Cell Rep. 2024 Mar 13;43(4):96. doi: 10.1007/s00299-024-03177-z. <u>Xue</u> et al. (2023). The PtdIns3P phosphatase MtMP promotes symbiotic nitrogen fixation via mitophagy in Medicago truncatula. iScience. 2023 Sep 15;26(10):107752.doi: 10.1016/j.isci.2023.107752. <u>Gu</u> et al. (2021) A Lipid Bodies-Associated Galactosyl Hydrolase Is Involved in Triacylglycerol Biosynthesis and Galactolipid Turnover in the Unicellular Green Alga Chlamydomonas reinhardtii <u>Dittmer.</u> Kleine, & Schwenkert. (2021) The TPR- and J-domain-containing proteins DJC31 and DJC62 are involved in abiotic stress responses in Arabidopsis thaliana. J Cell Sci. 2021 Oct 1;134(19):jcs259032. doi: 10.1242/jcs.259032. Epub 2021 Oct 12. PMID: 34515300. <u>Shteinberg</u> et al. (2021) Tomato Yellow Leaf Curl Virus (TYLCV) Promotes Plant Tolerance to Drought. Cells. 2021 Oct 25;10(11):2875. doi: 10.3390/cells10112875. PMID: 34831098; PMCID: PMC8616339. <u>Mishra</u> et al. (2021) Interplay between abiotic (drought) and biotic (virus) stresses in tomato plants. Mol Plant Pathol. 2021 Dec 30. doi: 10.1111/mpp.13172. Epub ahead of print. PMID: 34970822. <u>Yang</u> et al. (2020). PROTEIN PHOSPHATASE 95 Regulates Phosphate Homeostasis by Affecting Phosphate Transporter Trafficking in Rice. Plant Cell. 2020 Jan 9. pii: tpc.00685.2019. doi: 10.1105/tpc.19.00685.

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Western blot

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5 μg of total protein from *A.thaliana* (1), *H. vulgare* (2), *P. sativum* (3)*, *Z. mays* (4), *C. sativus*(5), *S. tuberosum* (6), *S. oleracea* (7), *S. lycopersicum* (8) *P. patens* (9)*, *C. reinhardtii* (10) extracted with Agrisera PEB extraction buffer (AS08 300) were separated on 4-12% SDS-PAGE and blotted 1h to PVDF. Blots were blocked immediately following transfer in 5 % non-fat milk in TBS-T, for 1h at room temperature with agitation. Blots were incubated in the primary antibody at a dilution of 1: 10 000 for 1h at room temperature with agitation. The antibody solution was decanted and the blot was rinsed briefly twice, then washed once for 15 min and 3 times for 5 min in TBS-T at room temperature with agitation. Blots were incubated in secondary antibody (anti-rabbit IgG horse radish peroxidase conjugated, from Agrisera <u>AS09</u> 602) diluted to 1:50 000 for 1h at room temperature with agitation. The blots were washed as above and developed for 5 min with ECL detection reagent of extreme femtogram range, according to the manufacturers instructions. Exposure time was 5 seconds. * Lack of the signal or its low signal intensity in those samples can be due to the sample biology. If you work with those species, please <u>inquire</u>.

Immunolocalization





BiP localization in 5 days old *Arabidopsis thaliana* roots (A), 3 days old *Triticum aestivum* roots (B). BiP signal shown in red, DAPI in blue. The material has been fixed in para-formaldehyde for 30 minutes. Tissue cleaning has been performed before immunolocalization. Rabbit anti-BiP primary antibody diluted in 1: 600 and ALEXA 555 conjugated anti-rabbit secondary antibody (red color) have been used. Co-staining with DAPI visualized nucleus (blue color). Scale bar – 10 µm.

Courtesy Dr. Taras Pasternak, Freiburg University, Germany