

Product no **AS09 481**

BiP | Lumenal-binding protein (rabbit antibody)

Product information

Background	BiP2 (Binding immunoglobulin protein) is localized in endoplasmic reticulum lumen (ER) and plays a role in protein assembly inside ER. BiP protein is abundant under all growth conditions but its synthesis can increase under conditions that lead to the accumulation of unfolded polypeptides in endoplasmic reticulum (ER).
Immunogen	<u>KLH</u> -conjugated synthetic peptide derived from <i>Arabidopsis thaliana</i> BiP proteins: BiP1 <u>At5g28540 Q9LKR3</u> , BiP2 <u>At5g42020 F4K00Z</u> , BiP3 <u>At1g09080 Q8H1B3</u>
Host	Rabbit
Clonality	Polyclonal
Purity	Affinity purified serum in PBS, pH 7.4
Format	Lyophilized
Quantity	50 µg
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 tubes briefly prior to opening them to avoid any losses that might occur from lyophilized material adhering to the cap or sides of the tubes.
Tested applications	ELISA (ELISA), Immunofluorescence (IF), Immunogold (IG), Western blot (WB)
Related products	<u>AS09 615</u> Anti-BiP2 lumenal-binding protein 2, goat antibodies <u>AS09 614</u> Anti-BiP2 lumenal-binding protein 2, chicken antibodies <u>AS09 481PRE</u> BiP lumenal-binding protein, pre-immune serum <u>antibodies to plant endomembrane system proteins</u> <u>Plant protein extraction buffer</u> <u>Secondary antibodies</u>

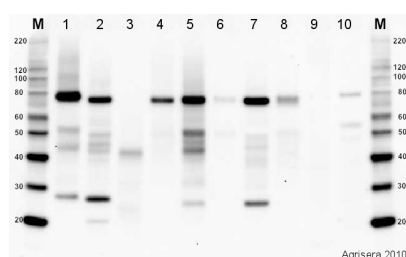
Application information

Recommended dilution	1 : 8000 (ELISA), 1 : 600 (IF), 1 : 2000 (WB)
Expected apparent MW	73.5 80 kDa
Confirmed reactivity	<i>Anacardium occidentale</i> , <i>Arabidopsis thaliana</i> , <i>Brassica napus</i> , <i>Chara australis</i> R.Br., <i>Chlamydomonas reinhardtii</i> , <i>Cucumis sativus</i> , <i>Mangifera indica</i> , <i>Moniliophthora perniciosa</i> , <i>Nicotiana benthamiana</i> , <i>Nicotiana tabacum</i> , <i>Raphanus sativa</i> L. <i>Tokinashi-daikon</i> , <i>Olea europaea</i> , <i>Oryza sativa</i> , <i>Picea abies</i> , <i>Pistachio sp.</i> , <i>Physcomitrella patens</i> , <i>Schinus molle</i> , <i>Spinacia oleracea</i> , <i>Solanum lycopersicum</i> , <i>Solanum tuberosum</i> , <i>Triticum aestivum</i> , <i>Zea mays</i>
Predicted reactivity	<i>Arabis alpina</i> , <i>Capsella rubella</i> , <i>Capsicum annuum</i> , <i>Citrus clementina</i> , <i>Citrus sinensis</i> , <i>Eucalyptus grandis</i> , <i>Glycine max</i> , <i>Hordeum vulgare</i> , <i>Isatis tinctoria</i> , <i>Prunus persica</i> , <i>Triticum aestivum</i> , <i>Petunia hybrida</i> , <i>Picea sitchensis</i> , <i>Populus trichocarpa</i> , <i>Ricinus communis</i> , <i>Vitis vinifera</i> Species of your interest not listed? Contact us
Not reactive in	<i>Ostreococcus tauri</i>
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. For high resolution images, please visit the specific product page at www.agrisera.com
Selected references	

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- Je et al. (2016). Signaling from maize organ primordia via FASCIATED EAR3 regulates stem cell proliferation and yield traits. Nat Genet. 2016 Jul;48(7):785-91. doi: 10.1038/ng.3567. Epub 2016 May 16.

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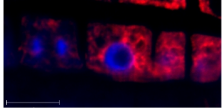
Western blot



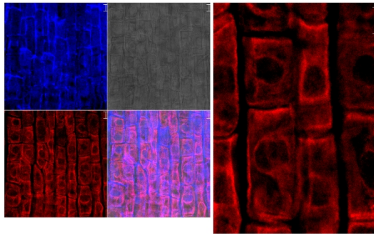
5 µg of total protein from *A.thaliana* (1), *H. vulgare* (2), *P. sativum* (3)*, *Z. mays* (4), *C. sativus*(5), *S. tuberosum* (6), *S. oleracea* (7), *S. lycopersicum* (8) *P. patens* (9)*, *C. reinhardtii* (10) extracted with Agrisera PEB extraction buffer (AS08 300) were separated on 4-12% SDS-PAGE 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 AS09 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 [inquire](#).

Immunolocalization

A



B



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 μ m.

Courtesy Dr. Taras Pasternak, Freiburg University, Germany