

product **AS09 614**  
**BiP2 | lumenal-binding protein 2**

## product information

<b>background</b>	<b>BiP2</b> (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). Alternative name: AtBP2
<b>immunogen</b>	<u>KLH</u> -conjugated synthetic peptide derived from <i>Arabidopsis thaliana</i> BiP2 <u>Q39043</u> . Chosen peptide is also conserved in <i>Arabidopsis thaliana</i> BiP1 protein.
<b>antibody format</b>	hen polyclonal, affinity purified IgY in PBS pH 7.4, liquid
<b>quantity</b>	100 µg
<b>storage</b>	store at 4 °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.
<b>tested applications</b>	western blot (WB), immunofluorescence (IF)
<b>additional information</b>	Antibody solution contains 0.02% sodium azide as preservative Method for plant ER isolation is available <a href="#">here</a> .

## application information

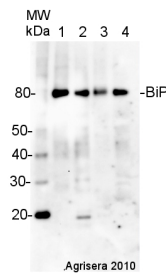
<b>recommended dilution</b>	1: 2000 with standard ECL (WB), 1: 1000 (IF)
<b>expected   apparent MW</b>	73.5   80 kDa
<b>confirmed reactivity</b>	dicots including: <i>Arabidopsis thaliana</i> , <i>Spinacia oleracea</i> , monocots including: <i>Hordeum vulgare</i> , <i>Zea mays</i>
<b>predicted reactivity</b>	dicots including: <i>Nicotiana tabacum</i> , <i>Spinacia oleracea</i> , monocots: <i>Oryza sativa</i> , <i>Zea mays</i> , trees: <i>Picea sitchensis</i> , <i>Populus trichocarpa</i> , moss: <i>Physcomitrella patens</i>
<b>not reactive in</b>	no confirmed exceptions from predicted reactivity known in the moment
<b>additional information</b>	Protein or membrane sample should be treated at 70 °C for 10 min before loading on the gel.

### selected references

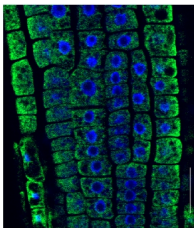
to be added when available, antibody released in September 2010

### application example

5 µg of total protein from *A.thaliana* (1), *H. vulgare* (2), *Z.mays* (3), *S. oleracea* (4), 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 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-hen IgY horse radish peroxidase conjugated, from Agrisera [AS09 603](#)) 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 according to the manufacturers instructions. Exposure time was 5 seconds.



### immunofluorescence



BiP localization in 5 days old *Arabidopsis thaliana* roots. BiP signal shown in green, DAPI in blue. The material has been fixed in para-formaldehyde for 30 minutes. Tissue cleaning has been performed before immunolocalization. Chicken anti-BiP primary antibody was diluted in 1: 1000 and DyLight®488 conjugated goat anti-chicken secondary antibody [AS09 622](#) (green color) was diluted in 1: 1000. Co-staining with DAPI visualized nucleus (blue color). Scale bar – 10 µm.

Courtesy Dr. Taras Pasternak, Freiburg University