Anti-BGLU18 antibody, rabbit polyclonal

81-105　　200 µg

Storage: Ship at 4°C and store at -20°C. Do not freeze below -20℃.

Reactivity: Arabidopsis thaliana. Not tested in other species.

Validation of specificity: Specific reactivity has been validated by western blot using *bglu18* mutants.

Immunogen: Recombinant His6-Thioredoxin tagged BGLU18 protein (amino acids 27-528) of *A. thaliana*..

Applications:

1. Western blotting (1/2,000-1/4,000)　2. Immunoelectron Microscopy (1/1,000)

Form: 2 mg/ml in PBS, 50% glycerol. Filter-sterilized. No preservative or carrier protein

Purity: IgG fraction purified by protein A affinity-chromatography from the rabbit antiserum

Background: Hydrolyzes abscisic acid glucose ester (ABA-GE) which represents the predominant form of conjugated ABA (biologically inactive). No activity with beta-D-glucopyranosyl zeatin. The hydrolysis of ABA-GE in the endoplasmic reticulum (ER) forms free ABA and contributes to increase its cellular levels under dehydration conditions. ABA-GE hydrolyzing activity is enhanced by dehydration stress-induced polymerization into higher molecular weight forms. The ABA produced by BGLU18 contributes to the initiation of intracellular signaling as well as the increase in the extracellular ABA level. Length:528 amino acids. Predicted molecular mass:60,459

Subcellular location: Endoplasmic reticulum lumen.

Modification: Elimination of 26-amino acid signal peptide from N-terminus.

Data Link: UniProtKB-Q9SE50 (BGL18_ARATH)

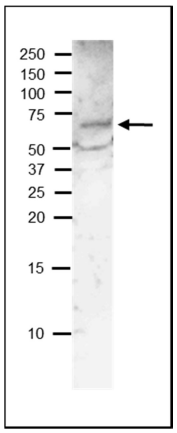

Fig.1　Western blot of BGLU18 in extract of arabidopsis.seedling

Crude extract of 7day old seedling of *Arabidopsis thaliana* was run on 15-20% gradient SDS-PAGE and blotted overnight to PVDF membrane by wet system. Blocking was done with 3% skim milk. Anti-NAI2 antibody (C-terminal) was used at 1/1,000 dilution. Secondary antibody (goat anti-rabbit IgG antibody HRP-conjugated, ab97051) was used at 1/10,000 dilution.

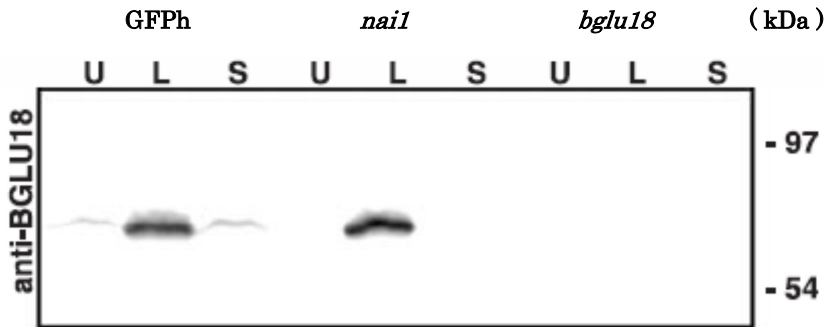

Fig.2 Western blot analysis of BGLU18 protein accumulation.

BGLU18 accumulates in locally wounded cotyledons of both GFPh plants (wild-type with GFP-fused with ER-retention signal) and *nai1* mutant but not in *bglu18* mutant.

Samples: Extracts of 12-day-old cotyledons from U: unwounded, L: locally wounded, S: systemically wounded. The anti-BGLU18 antibody was used at 1/2,000 dilution. As the second antibody, HRP-conjugated goat anti-rabbit IgG was used at 1/5,000 dilution.

Reference: This antibodyhas been described and used in the following publication.

1.Ogasawara K et al. Constitutive and inducible ER bodies of Arabidopsis thaliana accumulate distinct beta-glucosidases. Plant Cell Physiol. 2009 Mar;50(3):480-8. PMID: 19147648 **WB, Immunoelectron Microscopy (Arabidopsis)**