

Anti-PBP1 antibody, N-terminal, rabbit polyclonal

81-112 200 µg

Shipping and Storage: Shipped at 4°C or -20°C and store at -20°C. Do not freeze.

Immunogen: Synthetic peptide C-KNGQPEQAPLRGTKG corresponding to PBP1 protein (46-60 amino acids) of *Arabidopsis thaliana*.

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

Purity: IgG fraction purified by protein A affinity from the rabbit antiserum to PBP1.

Reactivity: Arabidopsis thaliana. Not tested in other species.

Applications:

Western blotting (1/2,000)

Background: PBP1 (PYK10-binding protein 1) is inhibitor-type lectin that may regulate the correct polymerization of BGLU23/PYK10 upon tissue damage. Activates BGLU21, BGLU22 and BGLU23. Length; 298 amino acids. Mass (Da); 32,158

Subcellular location: Cytoplasm

Data Link: UniProtKB [O04314](https://www.uniprot.org/uniprot/O04314)(JAL30_ARATH)

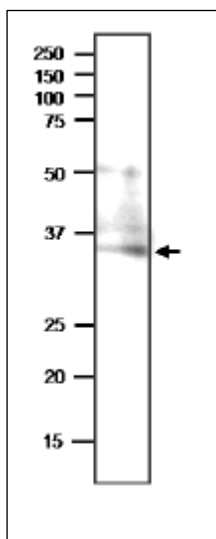


Fig.1 Western blot of PBP1 in extract of seedling of Arabidopsis

Crude extract of 7-day-old seedling of *Arabidopsis thaliana* was run on 12.5% SDS-PAGE at 15 V and blotted overnight to PVDF membrane by wet system. Blocking was done with 3% skim milk. The anti-PBP N-terminal antibody was used at 1 µg/ml. Secondary antibody (goat anti-rabbit IgG antibody HRP-conjugated, ab97051) was used at 1/10,000 dilution.

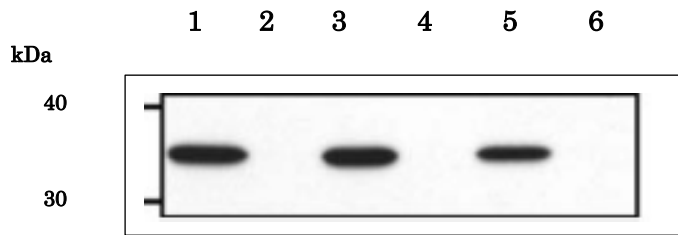


Fig.2 Western blot analysis of PBP1 protein expression in extracts of wild type and *nai-1* mutant seedlings.

Samples: Extracts of 7day-old seedlings of (1) wild-type with GFP-h fusion, (2) *nai1-1* mutant, (3) wild-typ (4) *nai1-2* mutant, (5) F1 progeny of GFPPh x *nai1-2*, (6) F1 progeny of *nai1-1* x *nai1-2*.

PBP1 protein is absent in samples (2), (4) and (6), indicating that PBP1 expression is positively regulated by *NAI1* gene.

The anti-PBP1 antibody was used at 1/4,000 dilution. As the second antibody, HRP conjugated goat anti-rabbit IgG was used 1/5,000 dilution (Pierce)

Reference. This antibody was described in Ref.1 and used in the following publications.

1. Matsushima R et al. NAI1 gene encodes a basic-helix-loop-helix-type putative transcription factor that regulates the formation of an endoplasmic reticulum-derived structure, the ER body. [Plant Cell](#). 2004 Jun;16(6):1536-49. PMID: [15155889](#) **WB (Arabidopsis)**
2. Nagano AJ et al. Activation of an ER-body-localized beta-glucosidase via a cytosolic binding partner in damaged tissues of Arabidopsis thaliana. [Plant Cell Physiol](#). 2005 Jul;46(7):1140-8. PMID: [15919674](#). **WB, IF (Arabidopsis)**

Related Products

[81-113](#) Anti-PBP1 antibody, C-terminal, rabbit polyclonal

[81-116](#) Anti-PYK10 (CM) antibody, rabbit polyclonal

[81-117](#) Anti-PYK10 (IM) antibody, rabbit polyclonal

Please note: All products are FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES. NOT FOR MILITARY USE.