Anti-PYK10 internal (At) antibody, rabbit polyclonal

Product code	81-117
Size	100 µg
Storage	-20℃
Concentration	2.0 mg/ml
Buffer	PBS- with 50% glycerol
Purity	Purified IgG fraction with protein A from rabbit antiserum.
Immunogen	Synthetic peptide, C-SNHLEKPDPSKPRWMQDS, corresponding to internal region of PYK10 protein (351- 368 amino acids) of *Arabidopsis thaliana.*
Isotype	Rabbit IgG
Reactivity	Arabidopsis thaliana. Not tested in other species.
Special notes	N/A
Application	1. Western blotting (1/5,000-1/20,000) 2. Immunoprecipitation (1/500) 3. Immunofluorescent staining (1/100-1/500) 4. Immunohistochemistry (1/500)
Background	PYK10 is the main component of ER bodies.It has hydrolase activity, hydrolyzing O-glycosyl compounds It may produce defense compounds when plants are damaged by insects or wounding.Length;524 amino acids. Mass; 59,721. The signal sequence, N-terminal 24 amino acids is removed in the mature protein. It has ER retention signal, KDEL, at C-terminus. Subcellular localization: ER bodies.
Data Link	UniProtKB A0A178VCN3 (A0A178VCN3_ARATH)

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

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Data Images: 81-117 Anti-PYK10 internal (At) antibody, rabbit polyclonal

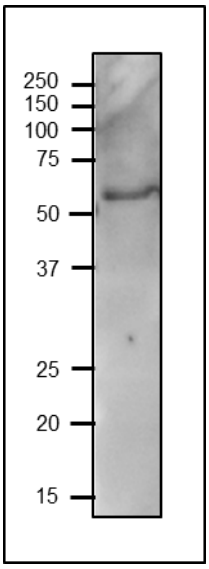

Fig.1 Western blot of PYK10 in extract of seedlings of arabidopsis

Crude extract of 7-day-old seedlings of *Arabidopsis thaliana* was run on SDS-PAGE (12.5% gel) and blotted to PVDF membrane by semi-dry system. Blocking was done with 3% skim milk. The anti-PYK10 (intermial) antibody was used at 0.4µg/ml. Secondary antibody (goat anti-rabbit IgG antibody HRP-conjugated, ab97051) was used at 1/10,000 dilution.

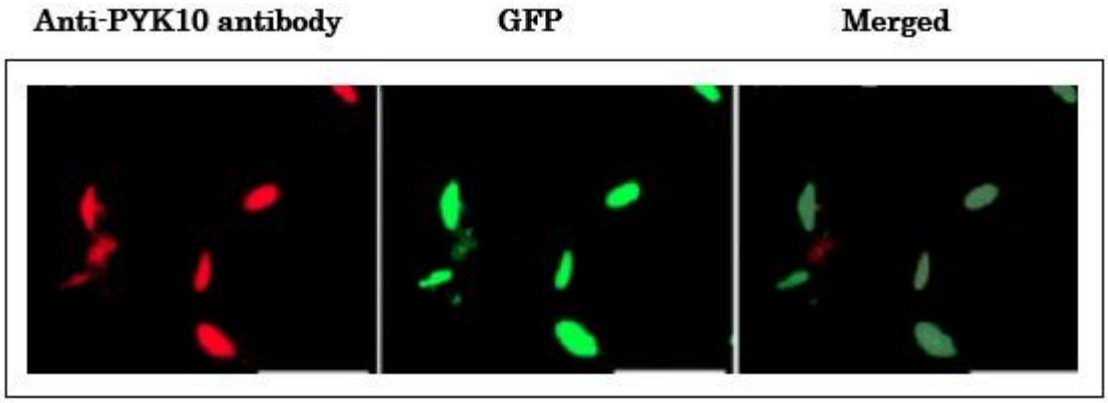

Fig.2 Localization of PYK10 in ER bodies shown by immunofluorescent staining.

Sample; The P1 pellet obtained from 8-day-old seedlings (carrying GFP gene with ER-retention signal)

The PYK10 antibody was used at 1/500 dilution and as the second antibody, Alex Fluor 546 conjugated goat anti-rabbit IgG (Molecular Probes) was used at 1/1,000 dilution.

Colocalization of PYK10 with GFP signal indicates that PYK10 is localized in ER bodies.

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

1. Matsushima R et al. A novel ER-derived compartment, the ER body, selectively accumulates a beta-glucosidase with an ER-retention signal in Arabidopsis Plant J. 2003 Feb;33(3):493-502. PMID: 12581307.**WB, IF, IHC (arabidopsis)**
2. Nagano AJ et al. Activation of an ER-body-localized β-Glucosidase via a Cytosolic Binding Partner in Damaged Tissues of Arabidopsis thaliana. Plant Cell Physiol. 2005 Jul;46(7):1140-8. PMID: 15919674 **WB, IP (arabidopsis)**
3. Yamada K et al.NAI2 Is an Endoplasmic Reticulum Body Component That Enables ER Body Formation in *Arabidopsis thaliana*. Plant Cell. 2008 Sep; 20(9): 2529–2540. PMID: 18780803. **WB (arabidopsis)**
4. Nagano AJ et al. Quantitative analysis of ER body morphology in an Arabidopsis mutant. Plant Cell Physiol. 2009 Dec;50(12):2015-22. PMID: 19906837 **WB (arabidopsis)**
5. Yamada K et al. Identification of Two Novel Endoplasmic Reticulum Body-Specific Integral Membrane Proteins Plant Physiol. 2013 Jan;161(1):108-20.PMID: 23166355 **WB (arabidopsis)**
6. Gotte M et al. Endoplasmic Reticulum Body–Related Gene Expression in Different Root Zones of Arabidopsis Isolated by Laser-Assisted Microdissection Plant Genome. 2016 Jul;9(2). PMID: 27898830.**IHC (arabidopsis)**

Related Products

81-101 Anti-MEB1 (At) antibody, rabbit polyclonal

81-102 Anti-MEB2 (At) antibody, rabbit polyclonal

81-103 Anti-NAI2 ΔSP (At) antibody, rabbit polyclonal

81-104 Anti-NAI2 C-terminal (At) antibody, rabbit polyclonal

81-105 Anti-BGLU18 (At) antibody, rabbit polyclonal

81-112 Anti-PBP1 N-terminal (At) antibody, rabbit polyclonal

81-113 Anti-PBP1 C-terminal (At) antibody, rabbit polyclonal

81-116 Anti-PYK10 C-terminal (At) antibody, rabbit polyclonal

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