Anti-OLE1 antibody, rabbit polyclonal

81-114　　200 μg

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

Immunogen: Synthetic peptide, C-KYATGEHPQGSDKLDS, corresponding to OLE1 protein (118-133 amino acids) of *Arabidosis 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 C-termial.

Reactivity: Arabidopsis thaliana. Not tested in other species.

Applications:

1.Western blotting (1/2,000)

2.Immunoelectron Microscopy (1/500)

Background: Oleosins may have a structural role to stabilize the lipid body during desiccation of the seed by preventing coalescence of the oil. Probably interacts with both lipid and phospholipid moieties of lipid bodies. May also provide recognition signals for specific lipase anchorage in lipolysis during seedling growth. Oleosins also increase the viability of over-wintering oilseeds by preventing abnormal fusion of oil bodies during imbibition in the spring.Length;173 amino acids. Mass; 18,569

Subcellular location: Surface of oil bodies

Data Link: UniProtKB P29525 (OLEO1_ARATH)

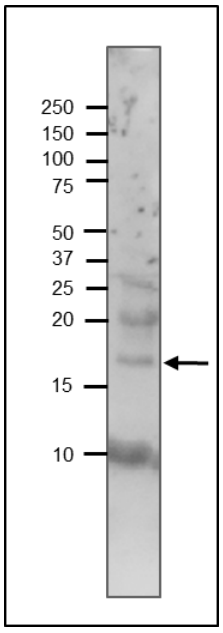

Fig.1　Western blot of OLE1 in homogenates of dry seeds of arabidopsis

Homogenates of dry seeds of *Arabidopsis thaliana* was run on SDS-PAGE (15-20% gradient gel) and blotted at 15 V overnight to PVDF membrane with wet system. Blocking was done with 3% skim milk. The anti-OLE1 antibody was used at 1 μ g/ml. Secondary antibody (goat anti-rabbit IgG antibody HRP-conjugated, ab97051) was used at 1/10,000 dilution.

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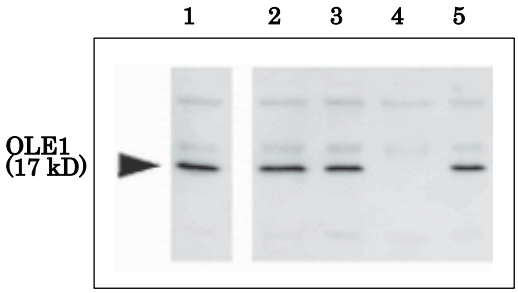

Fig.2 Western blot analysis of OLE1 protein in dry seeds of Arabidopsis.

Dry seeds were homogenized in SDS sample buffer (100 mM Tris/HCl, pH 6.8, 4% w/v SDS, 20% v/v glycerol, 10% v/v 2−mercaptoethnol).were homogenized in SDS sample buffer (100 mM Tris/HCl, pH 6.8, 4% w/v SDS, 20% v/v glycerol, 10% v/v 2 - mercaptoethnol).The homogenates of wild-type (1), oleosin-deficient mutants, *ole4* (2), *ole3* (3), *ole1* (4) and *ole2* (5) were run on SDS-PAGE (15% gel) and blotted to PVDF membrane. The membrane was blocked by 5% skim milk. The anti-OLE1 antibody was used at 1/2,000 dilution. As the second antibody, HRP-conjugated goat anti-rabbit IgG (Pierce) was used at 1/2,000 dilution

OLE1 migrated slightly faster than the predicted mass of 18.6 kD.

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

1. Shimada TL et al. A novel role for oleosins in freezing tolerance of oilseeds in Arabidopsis thaliana. Plant J. 2008 Sep;55(5):798-809. PMID: 18485063. **WB (arabidopsis)**
2. Shimada TL et al. A rapid and non - destructive screenable marker, FAST, for identifying transformed seeds of Arabidopsis thalianaPlant J. 2010 Feb 1;61(3):519-28. PMID: 19891705. **ImmunoeElectron microscopy (arabidopsis)**

Related Products

81-112 Anti-PBP1 antibody, N-terminal, rabbit polyclonal
81-115 Anti-OLE2 antibody, rabbit polyclonal
81-116 Anti-PYK10 (CM) antibody, rabbit polyclonal
81-117 Anti-PYK10 (IM) antibody, rabbit polyclonal