

81-114 Anti-OLE1 antibody, rabbit polyclonal

81-114 200 µg

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

Reactivity: *Arabidopsis thaliana*. Not tested in other species.

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

Applications:

1. Western blotting (1/2,000)
2. Immunoelectron Microscopy (1/500)

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

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

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](https://www.uniprot.org/uniprot/P29525) (OLEO1_ARATH)

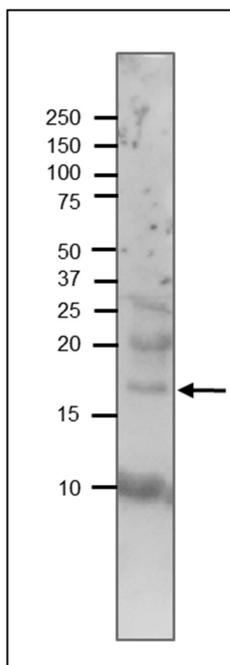


Fig.1 Western blot of OLE1 in homogenates of dry seeds of Arabidopsis

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 µg/ml. Secondary antibody (goat anti-rabbit IgG antibody HRP-conjugated, ab97051) was used at 1/10,000 dilution.

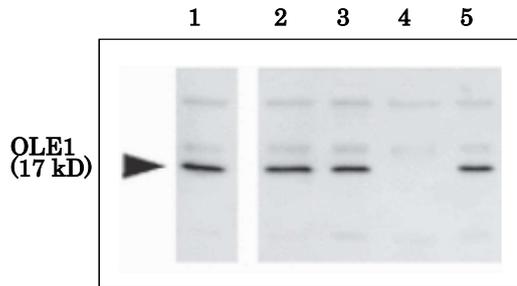


Fig.2 Western blot analysis of OLE1 protein in dry seeds of Arabidopsis.

Dry seed 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 thaliana* [Plant J.](#) 2010 Feb 1;61(3):519-28. PMID: [19891705](#). **Immunoelectron 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