

Anti-RHD3 antibody, N-terminal, rabbit polyclonal

81-108 200 µg

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

Immunogen: Synthetic peptide TDGRERGEDDTAFEKQSALF corresponding to RHD3 protein (98-117 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 CLO3.

Reactivity: Arabidopsis thaliana. Not tested in other species.

Applications: Western blotting (1/100~1/200)

Background: RHD3 (ROOT HAIR DEFECTIVE 3) protein is probable GTP-binding protein involved in cell wall expansion. Required for appropriate root and root hair cells enlargement. May inhibit vacuole enlargement during root hair cell expansion. Plays a role in cell wall biosynthesis and actin organization. Seems to act independently from auxin and ethylene pathways. May regulate membrane traffic from the Golgi apparatus towards the endoplasmic reticulum (ER). Length;802 amino acids. Molecular mass; 89,092

Subcellular location: Golgi apparatus membrane. ER membrae

Data Link: UniProtKB [P93042](https://www.uniprot.org/uniprot/P93042)

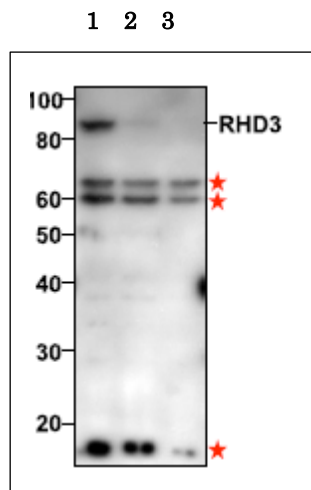


Fig. Validation of anti-RHD3 antibody with mutant plants

Samples; Total extracts of 5 to 7-day-old seedlings from wild type (1), *rhd3-1* (2) and *rhd3-2* (3) mutants.

The antibody was used at 1/100 dilution.

Asterisks indicate non-specific bands

Reference: This antibody used in the following publications.

1. Ueda H et al. Phosphorylation of the C Terminus of RHD3 Has a Critical Role in Homotypic ER Membrane Fusion in Arabidopsis. [Plant Physiol.](https://doi.org/10.1093/plphys/kwv001) 2016 Feb;170(2):867-80. PMID: [26684656](https://pubmed.ncbi.nlm.nih.gov/26684656/). **WB (Arabidopsis)**