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PINOID (C) Antibody, Rabbit Polyclonal

Cat#: R3462-2

Quantity: 100 ul

Predicted | Observed M.W.: 49 kDa

Lot#: Refer to vial

Application: WB

Uniprot ID: O64682

Background:

PINOID is a protein serine/threonine kinase that may act as a positive regulator of cellular auxin efflux, as a binary switch for PIN polarity, and as a negative regulator of auxin signaling. Recessive mutants exhibit similar phenotypes as pin-formed mutants in flowers and inflorescence but distinct phenotypes in cotyledons and leaves. PINOID is expressed in the vascular tissue proximal to root and shoot meristems, shoot apex and embryos; and is induced by auxin. Overexpression of PINOID results in phenotypes in the root and shoot similar to those found in auxin-insensitive mutants. PINOID physically interacts with TCH3 (TOUCH3) and PID-BINDING PROTEIN 1 (PBP1), a previously uncharacterized protein containing putative EF-hand calcium-binding motifs. PINOID acts together with ENP (ENHANCER OF PINOID) to instruct precursor cells to elaborate cotyledons in the transition stage embryo. PINOID autophosphorylation is required for the ability of PINOID to phosphorylate an exogenous substrate. PINOID activation loop is required for PDK1-dependent PINOID phosphorylation. In addition, PINOID kinase activity is critical for the inhibition of root hair growth and for maintaining the proper subcellular localization of PINOID.

Other Names:

Protein kinase PINOID, Protein kinase ABRUPTUS, ABR, At2g34650, T31E10.1, PID

Source and Purity:

Rabbit polyclonal antibodies were produced by immunizing animals with a GST-fusion protein containing the C-terminal region of *arabidopsis thaliana* PINOID (AT2G34650). Antibodies were purified by affinity purification using immunogen.

Storage Buffer and Condition:

Supplied in 1 x PBS (pH 7.4), 100 ug/ml BSA, 40% Glycerol, 0.01% NaN₃. Store at -20 °C. Stable for 6 months from date of receipt.

Species Specificity:

Arabidopsis thaliana

Tested Applications:

WB: 1:500-1:2,000 (detect endogenous protein*)

*: The apparent protein size on WB may be different from the calculated M.W. due to modifications.

Product Data:

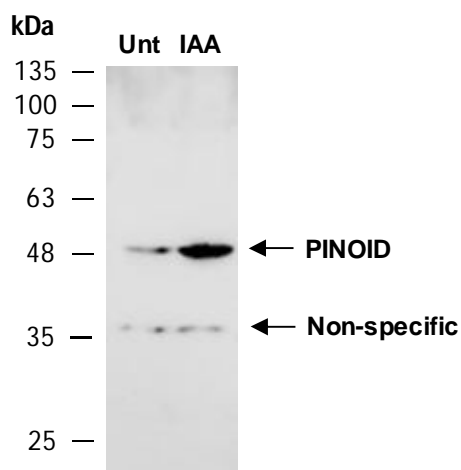


Fig 1. Western blot analysis of protein extracts from wild type arabidopsis leaves, untreated (Unt) or treated with 10uM indole-3-acetic acid (IAA) for 9 hrs, using anti-PINOID (C) (R3462-2) at RT for 2 h. PINOID is known to be induced by auxin (Benjamins et al., 2001, *Development* 128:4057-4067).