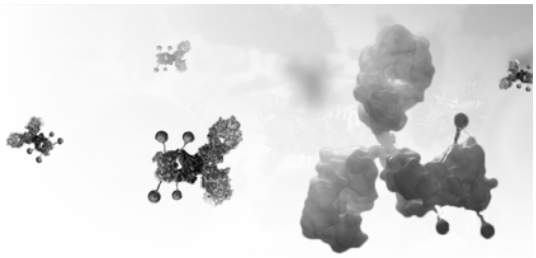

Rabbit anti-Arabidopsis thaliana AHK4 (C-term) Polyclonal Antibody (CABT-Z019R)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Immunogen	Antibodies were produced by immunizing animals with a GST-fusion protein containing the C-terminal region of arabidopsis thaliana AHK4.
Isotype	IgG
Source/Host	Rabbit
Species Reactivity	Arabidopsis thaliana
Purification	Antigen affinity purification
Conjugate	Unconjugated
Applications	WB Recommended dilution: WB: 1:500-1:2,000 (detect endogenous protein*)
Molecular Weight	Predicted M.W.: 118, 121 kDa; Observed M.W.: 120, 150 kDa
Preparation	Rabbit polyclonal antibodies were produced by immunizing animals with a GST-fusion protein containing the C-terminal region of arabidopsis thaliana AHK4 (AT2G01830).
Format	Liquid
Concentration	Lot specific
Size	100 µl
Buffer	Supplied in 1 x PBS (pH 7.4), 100 ug/ml BSA, 40% Glycerol, 0.01% NaN3.
Preservative	0.01% NaN3

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Storage	Store at -20°C. Stable for 6 months from date of receipt.
Ship	Wet ice

BACKGROUND

Introduction	AHK4 is a cytokinins (CK) receptor related to bacterial two-component regulators. AHK4 binds also the synthetic urea-type cytokinin thiadiazuron, a potent defoliant and herbicide. AHK4 functions as a histidine kinase and transmits the stress signal to a downstream MAPK cascade. AHK4 undergoes an ATP-dependent autophosphorylation at a conserved histidine residue in the kinase core, and a phosphoryl group is then transferred to a conserved aspartate residue in the receiver domain. In the presence of cytokinin, AHK4 feeds phosphate to phosphorelay-integrating histidine phosphotransfer protein (HPt) and activates subsequent cascade. In the absence of cytokinin, AHK4 removes phosphate from HPt proteins, decreasing the system phosphoload. AHK4 is involved in meristems establishment in seedlings. AHK4 acts as a redundant negative regulator of drought and salt stress responses, and abscisic acid (ABA) signaling in a cytokinin-dependent manner. AHK4 is required to set vascular asymmetric cell divisions that establish phloem and procambium cell lines. AHK4 is a redundant positive regulator of cytokinin signaling that regulates many development process including seed germination, cell division, seed size, chlorophyll retention during leaf senescence, root repression and shoot promotion.
Keywords	Histidine kinase 4;Arabidopsis histidine kinase 4;AtHK4;Cytokinin receptor CYTOKININ RESPONSE 1;AtCRE1;Cytokinin receptor CRE1;Phosphoprotein phosphatase AHK4;Protein AUTHENTIC HIS-KINASE 4;Protein ROOT AS IN WOL 1;Protein WOODEN LEG;CRE1;RAW1;WOL;At2g01830;T23K3.2

GENE INFORMATION

Gene Name	AHK4
Entrez Gene ID	814714
UniProt ID	Q9C5U0

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