



Product datasheet

Anti-AtRabA4 antibody ab55896

Overview

Product name	Anti-AtRabA4 antibody
Description	Rabbit polyclonal to AtRabA4
Host species	Rabbit
Specificity	ab55896 specifically recognizes recombinant AtRabA4b fusion protein
Tested applications	Suitable for: WB
Species reactivity	Reacts with: Arabidopsis thaliana, Soybean
Immunogen	Synthetic peptide corresponding to Arabidopsis thaliana AtRabA4 aa 201-219 (C terminal) conjugated to Keyhole Limpet Haemocyanin (KLH). Sequence: GKKLIPGSGQEIPAKTST Database link: Q38923  Run BLAST with  Run BLAST with
Positive control	Whole cell extract of E. coli expressing AtRabA4b fusion protein
General notes	If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilutions should be discarded if not used within 12 hours.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	Preservative: 15mM Sodium Azide Constituents: 0.01M PBS, pH 7.4
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab55896** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
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WB

Application notes

WB: Use at a concentration of 1 - 2 µg/ml. Predicted molecular weight: 24 kDa. Staining of the AtRabA4b band in immunoblotting is specifically inhibited by the immunizing peptide.

Not yet tested in other applications.

Optimal dilutions/concentrations should be determined by the end user.

Target

Relevance

Rab GTPases belong to the superfamily of small GTP binding proteins that include Ras, Rho, Arf and Ran GTPases. The Rab GTPases are involved in the regulation of diverse eukaryotic cellular processes such as cytoskeletal assembly and organization, cell proliferation and intracellular membrane trafficking. In eukaryotic cells Rab GTPases regulate membrane trafficking events associated with distinct compartments. The type of subcellular compartment with which Rab GTPase is associated can be predicted based on sequence similarity. The Arabidopsis genome contains a total of 93 small GTPase genes, including 57 members of the Rab family. Arabidopsis thaliana Rab GTPase RabA4b is highly similar to AtRab11. AtRabA4b labels a novel compartment that accumulates at the tips of expanding root hair cells. It has been suggested that in *A. thaliana*, the RabA4b GTPase regulates membrane trafficking steps involved in the polarized deposition of cell wall components in tip-growing root hair cells. AtRabA4b has been shown to label a novel, trans-Golgi network compartment displaying a developmentally regulated polar distribution in growing *A. thaliana* root hair cells. GTP bound AtRabA4b selectively recruits the plant phosphatidylinositol-4- kinase PI-4Kb1, but not other members of PI-4K families.

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