abcam

Product datasheet

Anti-RHOH antibody ab118507

1 References 4 Images

Overview

Product name	Anti-RHOH antibody
Description	Rabbit polyclonal to RHOH
Host species	Rabbit
Tested applications	**Suitable for:** WB, IHC-P, ICC/IF
Species reactivity	**Reacts with:** Human **Predicted to work with:** Mouse, Rat
Immunogen	Synthetic peptide KLH conjugated corresponding to a region from the C terminus of Human RHOH
Positive control	Human colon and small intestine tissue. HT-29 cell lysate and A549 cells.
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C or -80°C. Avoid freeze / thaw cycle. Store undiluted.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: PBS, 0.88% Sodium chloride, 50% Glycerol (glycerin, glycerine)
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab118507 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
WB		1/500 - 1/1000. Predicted molecular weight: 21 kDa.
IHC-P		Use a concentration of 5 µg/ml.
ICC/IF		1/100 - 1/500.

Target

Function Negative regulator of hematopoietic progenitor cell proliferation, survival and migration. Critical regulator of thymocyte development and T-cell antigen receptor (TCR) signaling by mediating recruitment and activation of ZAP70. Required for phosphorylation of CD3Z, membrane translocation of ZAP70 and subsequent activation of the ZAP70-mediated pathways. Essential for efficient beta-selection and positive selection by promoting the ZAP70-dependent phosphorylation of the LAT signalosome during pre-TCR and TCR signaling. Crucial for thymocyte maturation during DN3 to DN4 transition and during positive selection. Plays critical roles in mast cell function by facilitating phosphorylation of SYK in Fc epsilon RI-mediated signal transduction. Essential for the phosphorylation of LAT, LCP2, PLCG1 and PLCG2 and for Ca(2+) mobilization in mast cells (By similarity). Binds GTP but lacks intrinsic GTPase activity and is resistant to Rho-specific GTPase-activating proteins. Inhibits the activation of NF-kappa-B by TNF and IKKB and the activation of CRK/p38 by TNF. Inhibits activities of RAC1, RHOA and CDC42. Negatively regulates leukotriene production in neutrophils.

Tissue specificity Expressed only in hematopoietic cells. Present at very high levels in the thymus, less abundant in the spleen, and least abundant in the bone marrow. Expressed at a higher level in the TH1 subtype of T-helper cells than in the TH2 subpopulation. Expressed in neutrophils under inflammatory conditions, such as cystic fibrosis, ulcerative colitis and appendicitis.

Involvement in disease Note=A chromosomal aberration involving RHOH is found in a non-Hodgkin lymphoma cell line. Translocation t(3;4)(q27;p11) with BCL6.

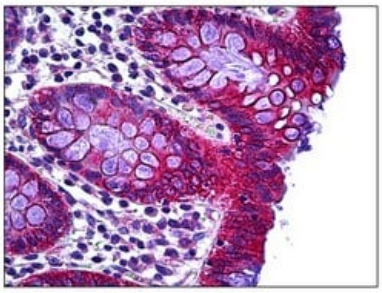
Sequence similarities Belongs to the small GTPase superfamily. Rho family.

Domain The region involved in interaction with ZAP70 is a non-canonical immunoreceptor tyrosine-based activation motif (ITAM).

Post-translational modifications Phosphorylated on tyrosine by LCK. Phosphorylated by FYN. Phosphorylation enhances the interactions with ZAP70 and SYK and is critical for its function in thymocyte development.

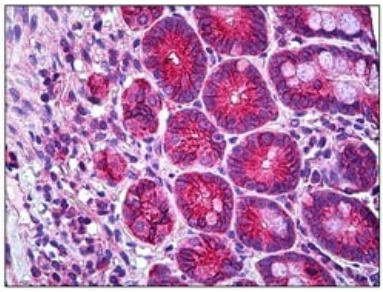
Cellular localization Cytoplasm. Cell membrane. Co-localizes together with ZAP70 in the immunological synapse.

Images



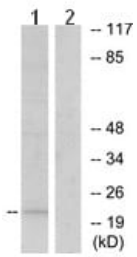
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-RHOH antibody (ab118507)

ab118507 at 5 µg/ml staining RHOH in Formalin-Fixed, Paraffin-Embedded Human colon tissue.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-RHOH antibody (ab118507)

ab118507 at 5 µg/ml staining RHOH in Formalin-Fixed, Paraffin-Embedded Human Small Intestine tissue.

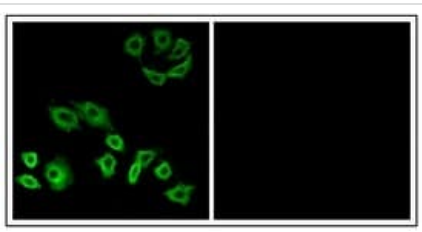


Western blot - Anti-RHOH antibody (ab118507)

All lanes : Anti-RHOH antibody (ab118507) at 1/500 dilution

Lane 1 : HT-29 extract without the synthesized peptide.
Lane 2 : HT-29 extract with the synthesized peptide.

Predicted band size: 21 kDa



Immunocytochemistry/ Immunofluorescence - Anti-RHOH antibody (ab118507)

Immunofluorescence analysis of A549 cells, using ab118507 at 1/100. The picture on the right is treated with the synthesized peptide.

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