abcam

Product datasheet

Anti-Munc 13-4 antibody ab15723

1 Image

Overview

Product name	Anti-Munc 13-4 antibody
Description	Goat polyclonal to Munc 13-4
Host species	Goat
Tested applications	**Suitable for:** WB
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide: KQASQHALRPAP, corresponding to C terminal amino acids 1079-1090 of Human Munc 13-4. Run BLAST with ExPASy Run BLAST with NCBI

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.30 Preservative: 0.02% Sodium azide Constituents: Tris buffered saline, 0.5% BSA
Purity	Immunogen affinity purified
Purification notes	Purified from goat serum by ammonium sulphate precipitation followed by antigen affinity chromatography using the immunising peptide.
Clonality	Polyclonal
Isotype	IgG

Applications

Our Abpromise guarantee covers the use of **ab15723** 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		Use a concentration of 1 - 3 µg/ml. Can be blocked with Human Munc 13-4 peptide (ab23273). Approx. 105kDa band observed in Human T-lymphocyte and HeLa lysates (calculated MW of 123kDa according to NP_954712.1)

Target

Function

Plays a role in cytotoxic granule exocytosis in lymphocytes. Required for both granule maturation and granule docking and priming at the immunologic synapse. Regulates assembly of recycling and late endosomal structures, leading to the formation of an endosomal exocytic compartment that fuses with perforin-containing granules at the immunologic synapse and licences them for exocytosis. Regulates Ca(2+)-dependent secretory lysosome exocytosis in mast cells.

Tissue specificity

Expressed at high levels in spleen, thymus and leukocytes. Also expressed in lung and placenta, and at very low levels in brain, heart, skeletal muscle and kidney. Expressed in cytotoxic T-lymphocytes (CTL) and mast cells.

Involvement in disease

Defects in UNC13D are the cause of hemophagocytic lymphohistiocytosis familial type 3 (FHL3) [MIM:608898]; also known as HPLH3. Familial hemophagocytic lymphohistiocytosis (FHL) is a genetically heterogeneous, rare autosomal recessive disorder. It is characterized by immune dysregulation with hypercytokinemia and defective natural killer cell function. The clinical features of the disease include fever, hepatosplenomegaly, cytopenia, hypertriglyceridemia, hypofibrinogenemia, and neurological abnormalities ranging from irritability and hypotonia to seizures, cranial nerve deficits, and ataxia. Hemophagocytosis is a prominent feature of the disease, and a non-malignant infiltration of macrophages and activated T lymphocytes in lymph nodes, spleen, and other organs is also found.

Sequence similarities

Belongs to the unc-13 family.
Contains 2 C2 domains.
Contains 1 MHD1 (MUNC13 homology domain 1) domain.
Contains 1 MHD2 (MUNC13 homology domain 2) domain.

Domain

The MHD1 and MHD2 domains mediate localization on recycling endosomes and lysosome.

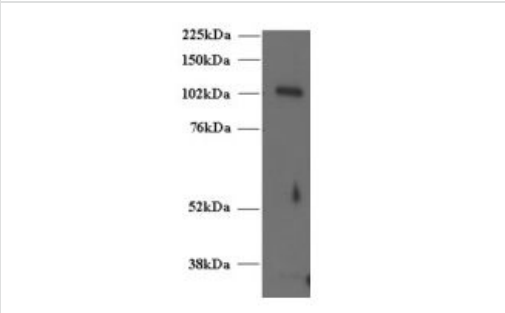
Cellular localization

Cytoplasm. Membrane. Late endosome. Recycling endosome. Lysosome. Colocalizes with cytotoxic granules at the plasma membrane. Localizes to endosomal exocytic vesicles.

Form

There are 3 isoforms produced by alternative splicing.

Images



Western blot - Anti-Munc 13-4 antibody (ab15723)

Anti-Munc 13-4 antibody (ab15723) at 2 µg/ml + Cell lysates prepared from human T lymphocytes at 35 µg

Developed using the ECL technique.

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