

Product datasheet

Anti-Munc 13-4 antibody [EPR4914] - BSA and Azide free ab239943

Recombinant RabMAb

2 Images

Overview

Product name	Anti-Munc 13-4 antibody [EPR4914] - BSA and Azide free
Description	Rabbit monoclonal [EPR4914] to Munc 13-4 - BSA and Azide free
Host species	Rabbit
Tested applications	Suitable for: ICC, Flow Cyt, WB Unsuitable for: IHC-P or IP
Species reactivity	Reacts with: Mouse, Human
Immunogen	Synthetic peptide within Human Munc 13-4 aa 1-100. The exact sequence is proprietary.
General notes	ab239943 is the carrier-free version of ab109113 This format is designed for use in antibody labeling, including fluorochromes, metal isotopes, oligonucleotides, enzymes.

Our [carrier-free formats](#) are supplied in a buffer free of BSA, sodium azide and glycerol for higher conjugation efficiency.

Use our [conjugation kits](#) for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Ab239943 is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm.

Maxpar® is a trademark of Fluidigm Canada Inc.

Rat: We have preliminary internal testing data to indicate this antibody may not react with this species. Please contact us for more information.

This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free production

For more information [see here](#).

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to [RabMAb® patents](#).

Reproducibility is key to advancing scientific discovery and accelerating scientists' next

breakthrough.

Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.

We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.

In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.

We are also updating the applications & species that this product has been “predicted to work with,” however this information is not covered by our Abpromise guarantee.

Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.

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, as well as customer reviews and Q&As.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR4914
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab239943** 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
ICC		Use at an assay dependent concentration.
Flow Cyt		Use at an assay dependent concentration. ab199376 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
WB		Use at an assay dependent concentration. Predicted molecular weight: 123 kDa.

Application notes Is unsuitable for IHC-P or IP.

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 licenses 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.

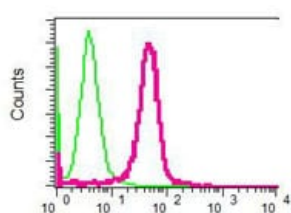
Sequence similarities Belongs to the unc-13 family.
Contains 2 C2 domains.
Contains 1 MHD1 (MUNC13 homology domain 1) domain.
Contains 1 MHD2 (MUNC13 homology domain 2) domain.

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



Flow Cytometry - Anti-Munc 13-4 antibody
[EPR4914] - BSA and Azide free (ab239943)

Flow cytometric analysis of permeabilized Molt-4 cells using [ab109113](#) in red.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab109113](#)).

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

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Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
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- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

Terms and conditions

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