abcam

ab240182

Anti-DOCK8 antibody [EPR12511] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR12511
Purification technique	Affinity purification Protein A
Concentration	0.995 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Not recommended

Species	Mouse, Rat, Human
Dilution info	-

Notes	-

WB

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	ab199376 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Not recommended

Species	Mouse
Dilution info	-
Notes	ab199376 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Species	Rat
Dilution info	-
Notes	ab199376 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Target data

See full target information DOCK8

Function	Guanine nucleotide exchange factor (GEF) which specifically activates small GTPase CDC42 by exchanging bound GDP for free GTP (PubMed:22461490, PubMed:28028151). During immune responses, required for interstitial dendritic cell (DC) migration by locally activating CDC42 at the leading edge membrane of DC (By similarity). Required for CD4(+) T-cell migration in response to chemokine stimulation by promoting CDC42 activation at T cell leading edge membrane (PubMed:28028151). Is involved in NK cell cytotoxicity by controlling polarization of microtubule-organizing center (MTOC), and possibly regulating CCDC88B-mediated lytic granule transport to MTOC during cell killing (PubMed:25762780).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C

Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab240182 is the carrier-free version of ab175208.

Patented technology

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

What are the advantages of a recombinant monoclonal antibody?

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 batch production

For more information, read more on recombinant antibodies.

Conjugation ready

Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

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.

Compatibility

This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	DOCK8 also known as Dedicator of Cytokinesis 8 weighs approximately 210 kDa. It acts mechanically as a guanine nucleotide exchange factor (GEF) for small Rho GTPases which help regulate actin cytoskeleton dynamics. DOCK8 is expressed widely particularly in hematopoietic cells such as lymphocytes. It also associates with cell membranes where it facilitates signaling pathways involved in immune cell function.
Biological function summary	DOCK8 actively participates in immune system regulation by impacting the cytoskeletal rearrangements necessary for proper signaling and movement of immune cells. DOCK8 engages with proteins like DOCK2 and DOCK3 forming a complex that modulates these cellular mechanisms. Its function enhances the

	proper survival and immune response activities of leukocytes assisting in immune surveillance and pathogen clearance.
Pathways	Several immune-related signaling pathways involve DOCK8 especially the Rac-dependent pathways that affect actin polymerization. DOCK8 interacts closely with the CRK-like protein (CRKL) to mediate these processes. These pathways highlight the interaction between DOCK8 and other proteins critical to immune cell function positioning DOCK8 as an important regulator in immune system pathways.
Associated diseases and disorders	Mutations in the DOCK8 gene correlate with DOCK8 deficiency a form of combined immunodeficiency characterized by eczema recurrent infections and high risk for malignancies. This disorder directly connects DOCK8 with suboptimal immune function. Furthermore DOCK8's interaction with the WASP protein plays a role in disrupting immune system health contributing to the pathophysiology of this immunodeficiency.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

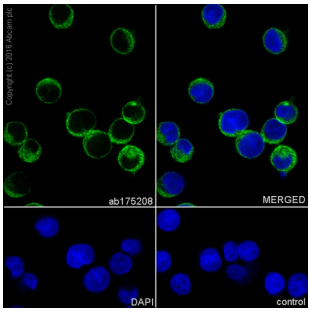
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

3 product images

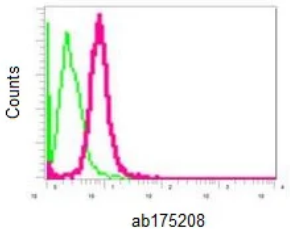


Immunocytochemistry/ Immunofluorescence - Anti-DOCK8 antibody [EPR12511] - BSA and Azide free (ab240182)

DOCK8 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-DOCK8 antibody

Immunocytochemistry/Immunofluorescence analysis of Raji (human Burkitt's lymphoma) cells labelling DOCK8 with purified ab175208 at 1/500. Cells were fixed with 100% methanol. An Alexa Fluor® 488-conjugated goat anti-rabbit IgG (ab150077) at 1/1000 dilution was used as the secondary antibody. Nuclei couterstained with DAPI (blue).
Secondary Only Control: PBS was used instead of the primary antibody as the negative control.

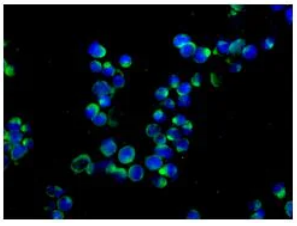
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab175208).



Flow Cytometry (Intracellular) - Anti-DOCK8 antibody [EPR12511] - BSA and Azide free (ab240182)

DOCK8 Flow Cytometry (Intracellular) staining using rabbit Anti-DOCK8 antibody

Intracellular flow cytometric analysis of permeabilized THP1 cells labeling DOCK8 with ab175208 at 1/10 dilution (red) compared to a Rabbit IgG (green).
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab175208).



Immunocytochemistry/ Immunofluorescence - Anti-DOCK8 antibody [EPR12511] - BSA and Azide free (ab240182)

DOCK8 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-DOCK8 antibody

Immunofluorescent staining of Raji cells labeling DOCK8 with ab175208 at 1/100 dilution (green). DAPI nuclear staining (blue).
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab175208).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.