abcam

ab175208

Anti-DOCK8 antibody [EPR12511]

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 50% Tissue culture supernatant, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR12511
Purity	Tissue culture supernatant

Reactivity data

IP

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/10000 - 1/50000
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	1/500
Notes	**For unpurified use at 1/100 - 1/250**

Not recommended

Species	Mouse
Dilution info	-
Notes	**For unpurified use at 1/100 - 1/250**

Species	Rat
Dilution info	-
Notes	**For unpurified use at 1/100 - 1/250**

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/10 - 1/100
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Not recommended

Species	Mouse
Dilution info	-
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Species	Rat
Dilution info	-
Notes	ab172730 - 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	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks

Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

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.

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

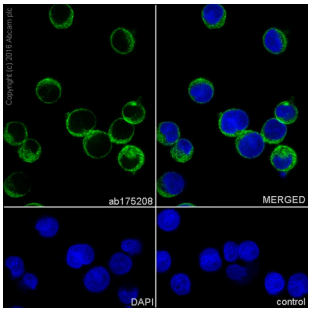
We do not recommend this combination. It is not covered by our product promise.

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.

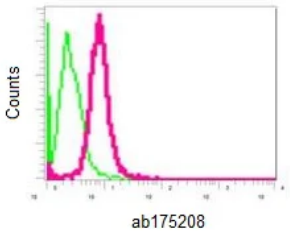
4 product images



Immunocytochemistry/ Immunofluorescence - Anti-DOCK8 antibody [EPR12511] (ab175208)

DOCK8 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-DOCK8 antibody

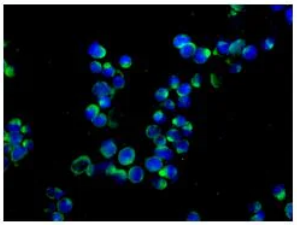
Immunocytochemistry/Immunofluorescence analysis of Raji (human Burkitt's lymphoma) cells labelling DOCK8 with purified ab175208 at 1/500. Cells were fixed with 100% methanol. An Alexa Fluor® 488-conjugated goat anti-rabbit IgG (ab150077) at 1/1000 dilution was used as the secondary antibody. Nuclei couterstained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



Flow Cytometry (Intracellular) - Anti-DOCK8 antibody [EPR12511] (ab175208)

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

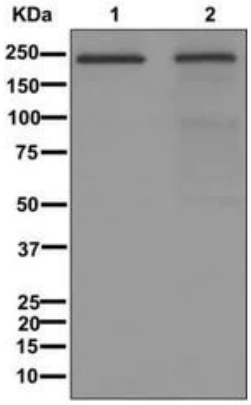
Intracellular flow cytometric analysis of permeabilized THP1 cells labeling DOCK8with ab175208at 1/10 dilution (red) compared to a Rabbit IgG (green).



Immunocytochemistry/ Immunofluorescence - Anti-DOCK8 antibody [EPR12511] (ab175208)

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).



Western blot - Anti-DOCK8 antibody [EPR12511] (ab175208)

All lanes:
Western blot - Anti-DOCK8 antibody [EPR12511] (ab175208) at 1/10000 dilution

Lane 1:
Raji cell lysate at 10 µg

Lane 2:
THP1 cell lysate at 10 µg

Predicted band size: 239 kDa

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