abcam

ab305297

Anti-SIGLEC8 antibody [EPR24419-56]

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, 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	EPR24419-56
Purification technique	Affinity purification Protein A
Concentration	0.531 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Transfected cell lysate - Human
Dilution info	1/1000
Notes	-

Expected

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

Not recommended

Species	Mouse, Rat, Transfected cell line - Human
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Human
Dilution info	-
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Mouse
Dilution info	-
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Rat
Dilution info	-
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Transfected cell lysate - Human
Dilution info	-
Notes	-

Species	Transfected cell line - Human
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/1000
Notes	-

Not recommended

Species	Transfected cell lysate - Human, Mouse, Rat, Transfected cell line - Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Transfected cell line - Human
Dilution info	1/50
Notes	-

Expected

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

Not recommended

Species	Transfected cell lysate - Human, Mouse, Rat
Dilution info	-
Notes	-

IP

Tested

Species	Transfected cell lysate - Human
Dilution info	1/30
Notes	-

Expected

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

Not recommended

Species	Mouse, Rat, Transfected cell line - Human
Dilution info	-
Notes	-

Target data

See full target information SIGLEC8

Function	Putative adhesion molecule that mediates sialic-acid dependent binding to blood cells (PubMed:10625619, PubMed:10856141). Preferentially binds to alpha-2,3-linked sialic acid. Also binds to alpha-2,6-linked sialic acid. The sialic acid recognition site may be masked by cis interactions with sialic acids on the same cell surface (PubMed:10625619). Recognizes simultaneously epitopes having a terminal N-acetylneuraminic acid (sialic acid) and an underlying 6-O-sulfated galactose. Preferentially binds to Gal-6-sulfated sialyl-Lewis X glycan epitopes (PubMed:27357658).

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	SIGLEC8 also known as Sialic acid-binding Ig-like lectin 8 is a protein that functions primarily as a receptor. It has a molecular mass of approximately 50 kDa. SIGLEC8 is expressed on the surface of certain immune cells specifically eosinophils basophils and to a lesser extent mast cells. This receptor plays an important role in the immune responses especially those involving inflammatory processes due to its ability to recognize and bind sialylated glycan ligands.
Biological function summary	SIGLEC8 serves as an inhibitory receptor on these immune cells which can help regulate their activation and survival. It does not form part of a large protein complex but its action can affect various cellular functions such as cell apoptosis and signaling processes. By binding to its specific glycan ligands SIGLEC8 reduces the lifespan of eosinophils which are often involved in allergic responses and asthma thereby helping to control inflammatory responses in tissues.
Pathways	SIGLEC8 is involved in pathways that regulate the immune system particularly those controlling eosinophil apoptosis and inflammation. It interacts with signaling pathways that include the Src family kinases which are central to signal transduction in immune cells. Additionally it shares functional relationships with other receptors in the SIGLEC family which modulate immune responses through similar mechanisms.
Associated diseases and disorders	SIGLEC8 is significantly associated with asthma and other allergic diseases. The protein's ability to induce apoptosis in eosinophils makes it an important target for therapies aimed at controlling eosinophil-mediated inflammation in asthma. It is also related to the IL-5 signaling pathway as IL-5 plays a role in the survival and activation of eosinophils. By influencing these pathways SIGLEC8 holds potential

as a therapeutic target for reducing symptoms and exacerbations in allergic conditions.

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

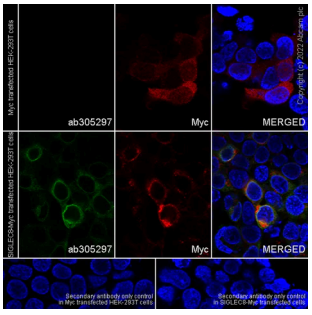
We do not recommend this combination. It is not covered by our product promise.

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



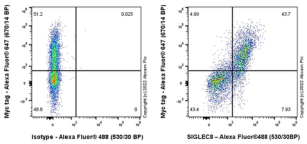
Immunocytochemistry/ Immunofluorescence - Anti-SIGLEC8 antibody [EPR24419-56] (ab305297)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized HEK-293T (human embryonic kidney epithelial cell) cells labelling SIGLEC8 with ab305297 at 1/1000 dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 dilution (Green). Confocal image showing cytoplasmic staining in HEK-293T cells transfected with a human SIGLEC8 expression vector containing a myc tag. The image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

Myc-Tag Mouse mAb (Alexa Fluor® 647) was used to counterstain tubulin at 1/100 dilution (Red).

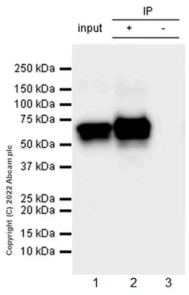
The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution.



Flow Cytometry (Intracellular) - Anti-SIGLEC8 antibody [EPR24419-56] (ab305297)

Flow cytometric analysis of 2% paraformaldehyde fixed 0.1% Tween-20 permeabilized HEK-293T (human embryonic kidney) cells transfected with a human SIGLEC8 expression vector containing a myc-his tag cells labelling SIGLEC8 with ab305297 at 1/50 dilution (1ug)/ Right compared with a Rabbit monoclonal IgG (ab172730) / Left isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody). A Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/2000 dilution was used as the secondary antibody. Live cells were surface stained with ab305297, then fixed with 2% PFA followed by intracellular staining with Myc-tag conjugated to Alexa Fluor® 647.



Immunoprecipitation - Anti-SIGLEC8 antibody [EPR24419-56] (ab305297)

SIGLEC8 was immunoprecipitated from 0.35 mg HEK-293T (human embryonic kidney epithelial cell) cells transfected with a human SIGLEC8 expression vector containing a myc-His-tag®, whole cell lysate, 2 µg with ab305297 at 1/30 dilution (2µg in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab305297 at 1/1000 dilution. VeriBlot for IP secondary antibody(HRP)(ab131366) was used at 1/5000 dilution. Lane 1: HEK-293T (human embryonic kidney epithelial cell) cells transfected with a human SIGLEC8 expression vector containing a myc-His-tag®, whole cell lysate, 2 µg Lane 2: ab305297 IP in HEK-293T cells transfected with a human SIGLEC8 expression vector containing a myc-His-tag®, whole cell lysate Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab305297 in HEK-293T cells transfected with a human SIGLEC8 expression vector containing a myc-His-tag®, whole cell lysate Blocking and dilution buffer and concentration: 5% NFDM/TBST. Exposure time: 3 seconds
All lanes:
Immunoprecipitation - Anti-SIGLEC8 antibody [EPR24419-56] (ab305297) at 1/30 dilution

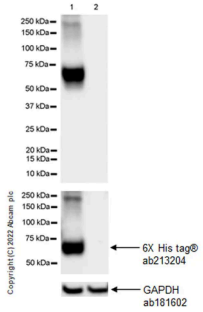
All lanes:
HEK-293T (human embryonic kidney epithelial cell)

Secondary

All lanes:
Immunoprecipitation - VeriBlot for IP Detection Reagent (HRP) (ab131366) at 1/5000 dilution

Observed band size: 60 kDa

Exposure time: 3s



Western blot - Anti-SIGLEC8 antibody [EPR24419-56] (ab305297)

Blocking and diluting buffer and concentration: 5% NFDM/TBST Exposure time: 1 second
All lanes:
Western blot - Anti-SIGLEC8 antibody [EPR24419-56] (ab305297) at 1/1000 dilution

Lane 1:
HEK-293T cells transfected with a human SIGLEC8 expression vector containing a myc-His-tag®, whole cell lysate at 20 µg

Lane 2:
HEK-293T transfected with an empty vector (vector control), containing a myc-His-tag®, whole cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Observed band size: 60 kDa

Exposure time: 1s

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