abcam

ab307847

Anti-SIGLEC5 antibody [RM2001] - 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	Multiclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	RM2001
Purification technique	Affinity purification Protein A
Concentration	0.991 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human, Transfected cell line - Human
Dilution info	-

Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Tested

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

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt

Tested

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

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

WB

Not recommended

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

IP

Not recommended

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

Target data

See full target information SIGLEC5

Function	Putative adhesion molecule that mediates sialic-acid dependent binding to cells. Binds equally to alpha-2,3-linked and 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.

Storage

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

Notes

What are recombinant multiclonals?
Recombinant multiclonals are a mixture of recombinant antibodies co-expressed from a library of heavy and light chains. They offer several advantages including:

- The sensitivity of polyclonal antibodies by recognising multiple epitopes
- High batch-to-batch consistency and reproducibility

- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

View our range of recombinant multiclonal antibodies.

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.

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	SIGLEC5 also known as CD170 is a sialic acid-binding Ig-like lectin with a molecular mass of approximately 96 kDa. This protein plays an important role in immune cell signaling by recognizing sialylated glycans on the surface of cells. SIGLEC5 is mainly expressed on immune cells such as neutrophils monocytes and macrophages. It belongs to the lectin family of proteins and can modulate immune responses and communication between cells.
Biological function summary	SIGLEC5 functions by mediating cell-cell interactions and transmitting inhibitory signals that regulate immune responses. It binds to sialic acid-containing glycoproteins which can help modulate the threshold for cell activation by transmitting signals through its immunoreceptor tyrosine-based inhibitory motif (ITIM). SIGLEC5 is not part of a large complex but interacts with other molecules to exert its function in maintaining immune cell balance.
Pathways	SIGLEC5 plays a role in immune signaling pathways by maintaining cell homeostasis. It contributes to the regulation of the immune response by modulating inhibitory signaling pathways. It is associated with proteins like Src family kinases which phosphorylate the ITIM motif to initiate downstream signaling cascades. Additionally its interaction with sialic acids allows modulation of the innate immune response to various stimuli.
Associated diseases and disorders	SIGLEC5 has been linked to autoimmune diseases and infections like bacterial sepsis. In autoimmune conditions the dysregulation of SIGLEC5-associated pathways can lead to improper immune cell activation and tissue damage. In the context of bacterial sepsis SIGLEC5 assists in dampening excessive immune responses and limiting inflammation. SIGLEC5 connects with proteins like DAP12

where aberrations could also influence disease progressions making it a target of interest for potential therapeutic interventions.

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

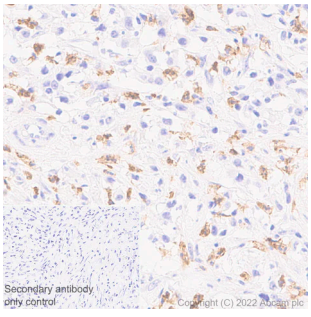
We do not recommend this combination. It is not covered by our product promise.

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.

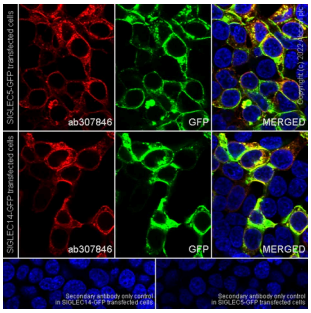
8 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SIGLEC5 antibody [RM2001] - BSA and Azide free (ab307847)

SIGLEC5 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human stomach carcinoma tissue using rabbit Anti-SIGLEC5 antibody

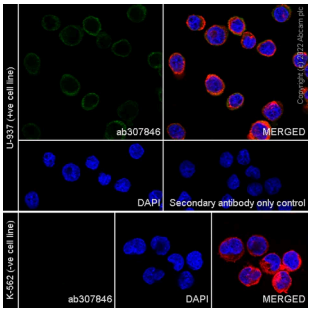
This data was developed using ab307846, the same antibody clone in a different buffer formulation. Immunohistochemical analysis of paraffin-embedded human stomach carcinoma tissue labeling SIGLEC5 with ab307846 at 1/500 dilution (0.972 µg/ml) followed by ready to use LeicaDS9800 (Bond ™ Polymer Refine Detection). Positive staining on human stomach carcinoma. The section was incubated with ab307846 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is ready to use LeicaDS9800 (Bond ™ Polymer Refine Detection). Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins.



Immunocytochemistry/ Immunofluorescence - Anti-SIGLEC5 antibody [RM2001] - BSA and Azide free (ab307847)

SIGLEC5 Immunocytochemistry/ Immunofluorescence staining of HEK-293T cells transfected with a human SIGLEC14 or SIGLEC5 expression vector containing a myc tag using rabbit Anti-SIGLEC5 antibody

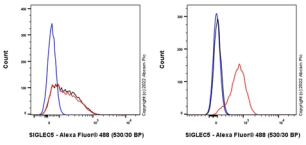
This data was developed using ab307846, the same antibody clone in a different buffer formulation. Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HEK-293T (human embryonic kidney epithelial cell) cells labeling SIGLEC5 and SIGLEC14 with ab307846 at 1/50 dilution (9.72 µg/ml) followed by ab150088 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 594) preadsorbed (ab150088) antibody at 1/1000 dilution (2 µg/ml) (Green). Confocal image showing positive staining in HEK-293T cells transfected with a human SIGLEC14 or SIGLEC5 expression vector containing a myc tag. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8). Nuclear counterstain was DAPI (Blue). Secondary antibody only control: Secondary antibody is ab150088 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 594) preadsorbed (ab150088) at 1/1000 dilution (2 µg/ml).



Immunocytochemistry/ Immunofluorescence - Anti-SIGLEC5 antibody [RM2001] - BSA and Azide free (ab307847)

SIGLEC5 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-SIGLEC5 antibody

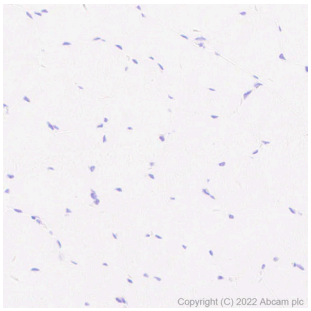
This data was developed using ab307846, the same antibody clone in a different buffer formulation. Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized U-937 (human histiocytic lymphoma monocyte) cells labeling SIGLEC5 with ab307846 at 1/50 dilution (9.72 µg/ml) followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 dilution (2 µg/ml) (Green). Confocal image showing membranous and cytoplasmic staining in U-937 cell line. Negative control: K-562 (PMID: 9731071). Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8). ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 dilution (2.5 µg/ml) (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 (2 µg/ml).



Flow Cytometry (Intracellular) - Anti-SIGLEC5 antibody [RM2001] - BSA and Azide free (ab307847)

SIGLEC5 Flow Cytometry (Intracellular) staining using rabbit Anti-SIGLEC5 antibody

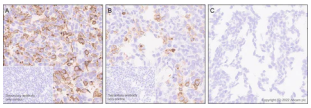
This data was developed using ab307846, the same antibody clone in a different buffer formulation. Flow cytometric analysis of K-562(human chronic myelogenous leukemia lymphoblast) (Left panel) compared with U-937 (human histiocytic lymphoma monocyte) (Right panel) labeling SIGLEC5 with ab307846 at 1/500 dilution (0.1µg) (Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (Blue). Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody. Negative control: K-562. Gated on viable cells.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SIGLEC5 antibody [RM2001] - BSA and Azide free (ab307847)

SIGLEC5 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human skeletal muscle tissue using rabbit Anti-SIGLEC5 antibody

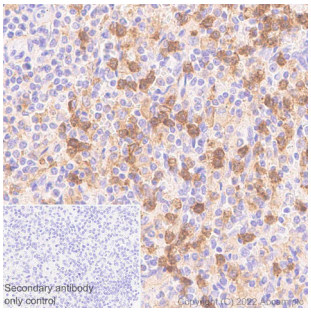
This data was developed using ab307846, the same antibody clone in a different buffer formulation. Immunohistochemical analysis of paraffin-embedded Human skeletal muscl tissue labeling SIGLEC5 with ab307846 at 1/500 Immunohistochemical analysis of paraffin-embedded human skeletal muscle tissue labeling SIGLEC5 with ab307846 at 1/500 dilution (0.972 µg/ml) followed by ready to use LeicaDS9800 (Bond ™ Polymer Refine Detection). Negative control: No staining on human skeletal muscle (PMID: 9731071). The section was incubated with ab307846 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is ready to use LeicaDS9800 (Bond ™ Polymer Refine Detection). Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SIGLEC5 antibody [RM2001] - BSA and Azide free (ab307847)

SIGLEC5 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of HEK-293T transfected with a SIGLEC5 expression vector using rabbit Anti-SIGLEC5 antibody

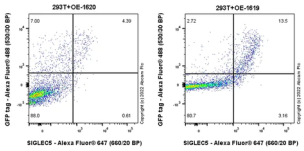
This data was developed using ab307846, the same antibody clone in a different buffer formulation. Immunohistochemical analysis of paraffin-embedded cell pellets labeling SIGLEC5 with ab307846 at 1/4000 dilution (0.122 µg/ml) followed by ready to use LeicaDS9800 (Bond ® Polymer Refine Detection). Positive staining on (A) HEK-293T transfected with a SIGLEC5 expression vector and (B) HEK-293T transfected with a SIGLEC14 expression vector, no staining on (C) HEK-293T transfected with empty vector. The section was incubated with ab307846 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin. Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SIGLEC5 antibody [RM2001] - BSA and Azide free (ab307847)

SIGLEC5 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human spleen using rabbit Anti-SIGLEC5 antibody

This data was developed using ab307846, the same antibody clone in a different buffer formulation. Immunohistochemical analysis of paraffin-embedded human spleen tissue labeling SIGLEC5 with ab307846 at 1/500 dilution (0.972 µg/ml) followed by ready to use LeicaDS9800 (Bond ™ Polymer Refine Detection). Positive staining on human spleen. The section was incubated with ab307846 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is ready to use LeicaDS9800 (Bond ™ Polymer Refine Detection). Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins.



Flow Cytometry (Intracellular) - Anti-SIGLEC5 antibody [RM2001] - BSA and Azide free (ab307847)

SIGLEC5 Flow Cytometry (Intracellular) staining of HEK-293T cells transfected with human SIGLEC14 or SIGLEC5 expression vector containing GFP tag cells using rabbit Anti-SIGLEC5 antibody

This data was developed using ab307846, the same antibody clone in a different buffer formulation. Flow cytometric analysis of HEK-293T (human embryonic kidney) cells transfected with human SIGLEC14 (Left) or SIGLEC5 (Right) expression vector containing GFP tag cells labeling SIGLEC5 and SIGLEC14 with ab307846 at 1/500 dilution (0.1µg). Goat anti-Rabbit IgG (Alexa Fluor® 647, ab150083) at 1/5000 dilution was used as the secondary antibody. Cross-react with SIGLEC14. Gated on viable cells.

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