abcam

ab233965

Anti-CDw75 antibody [LN-1]

Key facts

Isotype	IgM
Host species	Mouse
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.05% Sodium azide Constituents: PBS, 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	Cell preparation containing ST6GAL1 protein. The exact immunogen used to generate this antibody is proprietary information. Database link P15907
Clone number	LN-1
Light chain type	kappa
Concentration	0.2 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified from bioreactor concentrate by PEG precipitation.

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	1-2 µg for 10^6 Cells
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1-2 µg/mL
Notes	Staining of formalin-fixed tissues requires boiling tissue sections in 10 mM citrate buffer, pH 6.0, for 10-20 minutes followed by cooling at RT for 20 minutes. Incubate with primary antibody for 30 minutes at RT.

Target data

See full target information ST6GAL1

Function	Transfers sialic acid from CMP-sialic acid to galactose-containing acceptor substrates. In B lymphocytes, generates neuraminidase-sensitive lymphocyte cell-surface differentiation antigens, such as CDw75, HB-6 and CD76 (PubMed:1730763). Sialylates complex-type N-glycans attached on the fragment crystallizable (Fc) of IgGs confering anti-inflammatory effector functions. Preferentially monosialylates the alpha(1->3) mannose antenna of Fc glycoforms with subsequent disialylation occurring at a much slower rate.

Storage

Shipped at conditions	Blue Ice
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

Supplementary info

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

Activity summary	CDw75 also known as ST6Gal I is a sialyltransferase enzyme. This enzyme adds sialic acid to galactose residues on glycoproteins and glycolipids. Its molecular mass is approximately 45 kDa. This target is expressed in a variety of human tissues including the brain liver and immune system cells such as B-lymphocytes. CDw75 plays a vital role in recognizing and modifying cell surface antigens.
Biological function summary	The glycosylation carried out by CDw75 is essential for cell-cell interaction and adhesion processes. This enzyme is involved in forming specific glycan structures on the cell membrane. It is not part of a larger enzyme complex but functions as an individual glycosyltransferase. The glycans synthesized by CDw75 influence various physiological processes in the immune system neural transmission and liver function.
Pathways	Modification of cell surface antigens is where CDw75 fits into cellular mechanisms. It plays significant roles in the immune response pathway by assisting in immunological recognition. It is related to the glycosylation pathway where it functions alongside proteins like CMP-sialic acid synthetase. CDw75 is also related to proteins involved in the cell signaling pathways due to its role in modifying glycans.
Associated diseases and disorders	Disruption or changes in CDw75 activity have links to certain cancers and autoimmune diseases. Altered expression patterns of CDw75 are observed in conditions such as lymphoma where it affects tumor cell recognition and metastasis potential. Additionally in autoimmune diseases abnormal glycosylation by CDw75 may interfere with immune cell functions. This enzyme connects to other proteins in these conditions such as CD22 which also participates in B-cell receptor signaling and regulation.

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

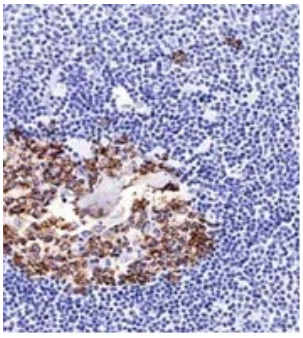
We do not recommend this combination. It is not covered by our product promise.

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.

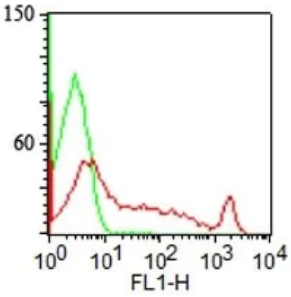
2 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CDw75 antibody [LN-1] (ab233965)

CDw75 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-CDw75 antibody

Formalin-fixed paraffin-embedded human spleen tissue stained for CDw75 using ab233965 at 1 µg/ml in immunohistochemical analysis.



Flow Cytometry - Anti-CDw75 antibody [LN-1] (ab233965)

CDw75 Flow Cytometry staining using mouse Anti-CDw75 antibody

Flow cytometric analysis of human lymphocytes labeling CDw75 with ab233965 at 1 µg/10^6 cells (red) compared to an isotype control (green). PPI negative population analyzed. Surface staining.

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