abcam

ab177959

Anti-ST3GAL3 antibody [EPR10006(2)]

Recombinant | RabMAb

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	EPR10006(2)
Purification technique	Affinity purification Protein A
Concentration	0.099 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	1/250 - 1/500
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

IP

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000 - 1/10000
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/50 - 1/100
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

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.

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information ST3GAL3

Function	Catalyzes the formation of the NeuAc-alpha-2,3-Gal-beta-1,4-GlcNAc-, NeuAc-alpha-2,3-Gal-beta-1,3-GlcNAc- and NeuAc-alpha-2,3-Gal-beta-1,3-GalNAc-sequences found in terminal carbohydrate groups of glycoproteins and glycolipids. The highest activity is toward Gal-beta-1,3-GlcNAc and the lowest toward Gal-beta-1,3-GalNAc.

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	ST3GAL3 also known as ST3 beta-galactoside alpha-23-sialyltransferase 3 is an enzyme involved in sialylation the process of adding sialic acid residues to glycoproteins and glycolipids. It has a molecular mass of approximately 42 kDa. ST3GAL3 primarily localizes in the Golgi apparatus where it catalyzes the transfer of sialic acid to galactose residues on glycoproteins. It is expressed in several tissues with notable levels in the brain and liver playing a role in glycan modification which affects cellular functions.
Biological function summary	ST3GAL3 contributes to the modification and stabilization of glycoproteins and glycolipids. It does not form part of a larger protein complex but interacts with substrates involved in glycan biosynthesis. These modifications can impact cell-cell interactions signaling and immune response. Its activity affects the surface properties of cells influencing processes like cell adhesion and migration which can be critical in development and differentiation.
Pathways	ST3GAL3 participates in glycosylation pathways that are essential for the proper functioning of the immune and nervous systems. It plays a role in the N-glycan biosynthesis pathway which is important for proper protein folding and trafficking. It also participates in the sialylation pathway alongside proteins such as ST3GAL4 and ST3GAL6 which serve similar functions but with different substrate specificities enabling a diverse range of glycan structures in cellular systems.
Associated diseases and disorders	Mutations or dysregulation in ST3GAL3 has links to disorders like neurodevelopmental conditions including intellectual disability. Its altered expression can affect the function of proteins associated with cognitive

development and neural connectivity. Changes in sialylation patterns can also relate to certain cancers where it influences tumor growth and metastasis. ST3GAL3 has interactions with other glycosyltransferases in these diseases which can exacerbate or ameliorate the pathological state. Understanding these interactions provides insights into potential therapeutic targets for treating these disorders.

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

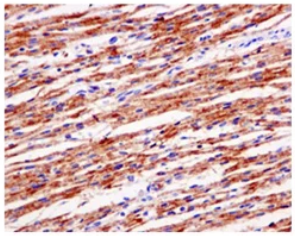
We do not recommend this combination. It is not covered by our product promise.

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.

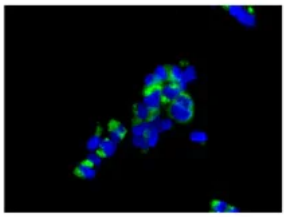
5 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ST3GAL3 antibody [EPR10006(2)] (ab177959)

ST3GAL3 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-ST3GAL3 antibody

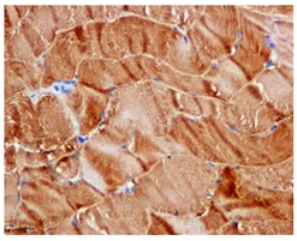
Immunohistochemical analysis of fetal cardiac muscle tissue labeling ST3GAL3 using ab177959 at 1/250 dilution.
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-ST3GAL3 antibody [EPR10006(2)] (ab177959)

ST3GAL3 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-ST3GAL3 antibody

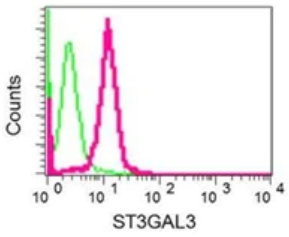
Immunofluorescence analysis of A673 cells labeling ST3GAL3 using ab177959 at 1/50 dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ST3GAL3 antibody [EPR10006(2)] (ab177959)

ST3GAL3 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-ST3GAL3 antibody

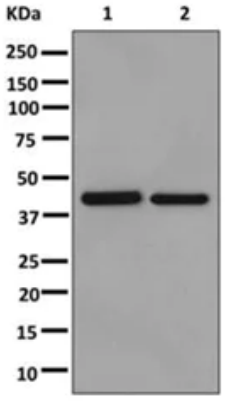
Immunohistochemical analysis of Human skeletal muscle tissue labeling ST3GAL3 using ab177959 at 1/250 dilution.
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-ST3GAL3 antibody [EPR10006(2)] (ab177959)

ST3GAL3 Flow Cytometry (Intracellular) staining using rabbit Anti-ST3GAL3 antibody

Intracellular flow cytometric analysis of permeabilized Jurkat cells labeling ST3GAL3 using ab177959 at 1/10 dilution (red), or a rabbit IgG (negative) (green).



Western blot - Anti-ST3GAL3 antibody [EPR10006(2)] (ab177959)

All lanes:
Western blot - Anti-ST3GAL3 antibody [EPR10006(2)] (ab177959) at 1/1000 dilution

Lane 1:
Human fetal heart lysate at 10 µg

Lane 2:
Human skeletal muscle lysate at 10 µg

Predicted band size: 42 kDa

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