abcam

ab250029

Anti-ST3GAL3 antibody [EPR10006(2)] - 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	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR10006(2)
Purification technique	Affinity purification Protein A

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

IP

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

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	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab250029 is the carrier-free version of ab177959.

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.

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	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

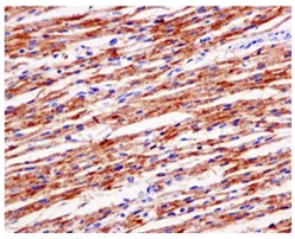
We do not recommend this combination. It is not covered by our product promise.

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

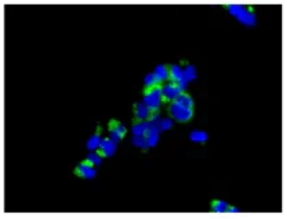


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ST3GAL3 antibody [EPR10006(2)] - BSA and Azide free (ab250029)

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

This data was developed using ab177959, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of fetal cardiac muscle tissue labeling ST3GAL3 using ab177959 at 1/250 dilution.

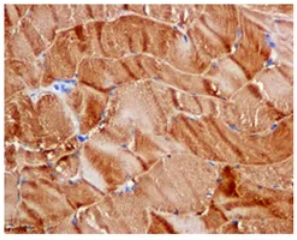
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-ST3GAL3 antibody [EPR10006(2)] - BSA and Azide free (ab250029)

ST3GAL3 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-ST3GAL3 antibody

This data was developed using ab177959, the same antibody clone in a different buffer formulation.
Immunofluorescence analysis of A673 cells labeling ST3GAL3 using ab177959 at 1/50 dilution.

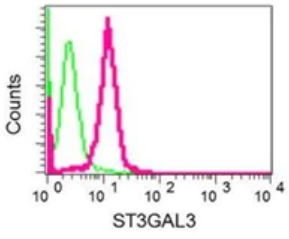


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ST3GAL3 antibody [EPR10006(2)] - BSA and Azide free (ab250029)

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

This data was developed using ab177959, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of Human skeletal muscle tissue labeling ST3GAL3 using ab177959 at 1/250 dilution.

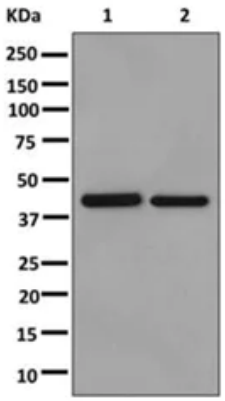
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-ST3GAL3 antibody [EPR10006(2)] - BSA and Azide free (ab250029)

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

This data was developed using ab177959, the same antibody clone in a different buffer formulation.
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)] - BSA and Azide free (ab250029)

This data was developed using ab177959, the same antibody clone in a different buffer formulation.
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'.