abcam

ab239008

Anti-Syntrophin alpha 1 antibody [EPR14828] - 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	EPR14828
Purification technique	Affinity purification Protein A
Concentration	1.004 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Expected

Species	Mouse, Human
Dilution info	Use at an assay dependent concentration.

Notes	-

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Predicted

Species	Mouse
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	-

Notes	-

Predicted

Species	Mouse
Dilution info	-
Notes	-

Target data

See full target information SNTA1

Function Adapter protein that binds to and probably organizes the subcellular localization of a variety of membrane proteins. May link various receptors to the actin cytoskeleton and the extracellular matrix via the dystrophin glycoprotein complex. Plays an important role in synapse formation and in the organization of UTRN and acetylcholine receptors at the neuromuscular synapse. Binds to phosphatidylinositol 4,5-bisphosphate (By similarity).

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

ab239008 is the carrier-free version of ab188873.

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	Syntrophin alpha 1 also known as SNTA1 or by its protein mass of about 53 kDa is an adaptor protein that plays an important role in linking the cytoskeleton to the cell membrane. It interacts with ion channels receptors and signaling proteins at the membrane. Syntrophin alpha 1 forms part of the dystrophin-associated protein complex important for structural integrity and signaling processes in muscle tissue. This protein sees expression mainly in skeletal and cardiac muscles as well as in the brain where it contributes to signal transduction and cellular architecture.
Biological function summary	Syntrophin alpha 1 contributes to maintaining muscular and neural function by organizing protein complexes at the cell membrane. It anchors various signaling molecules and is part of the dystrophin-glycoprotein complex. This involvement helps stabilize the muscle cell membrane during contraction and impact preventing damage. In neurons it modulates synaptic signaling and assists in maintaining cellular organization. The precise coordination of this protein with others in its complex ensures proper physiological responses to environmental stimuli.
Pathways	Syntrophin alpha 1 is a component of signaling pathways related to muscle contraction and neurological processes. It interfaces with the PI3K/AKT signaling pathway connected to cellular growth and the nitric oxide pathway that regulates muscle blood flow. Syntrophin alpha 1 is closely related to dystrophin in these pathways and together they interface with neuronal nitric oxide synthase (nNOS) modulating blood flow and synaptic activity. This partnership not only regulates physiological functions but also maintains cellular stability during stress.
Associated diseases and disorders	Alterations in syntrophin alpha 1 are associated with muscular dystrophies and cardiac conditions. Its malfunction contributes to disorders such as Duchenne muscular dystrophy where the absence of dystrophin disrupts the syntrophin-mediated membrane stability. Furthermore SNTA1 mutations can lead to long QT syndrome affecting cardiac electrical activity. In both cases the disturbance in syntrophin's interaction with dystrophin and nNOS contributes to disease progression leading to impaired muscle or cardiac function.

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

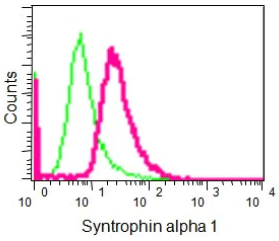
We do not recommend this combination. It is not covered by our product promise.

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.

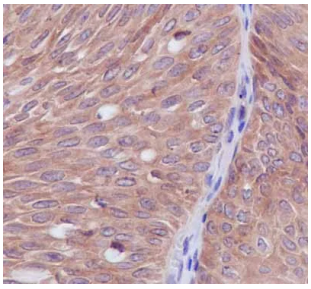
4 product images



Flow Cytometry (Intracellular) - Anti-Syntrophin alpha 1 antibody [EPR14828] - BSA and Azide free (ab239008)

Syntrophin alpha 1 Flow Cytometry (Intracellular) staining using rabbit Anti-Syntrophin alpha 1 antibody

Intracellular flow cytometric analysis of 2% paraformaldehyde-fixed HT29 cells labeling Syntrophin alpha 1 with ab188873 at 1/280 dilution (red) compared to a Rabbit monoclonal IgG isotype control (green), followed by Goat anti rabbit IgG (FITC) secondary at 1/150 dilution. This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab188873).

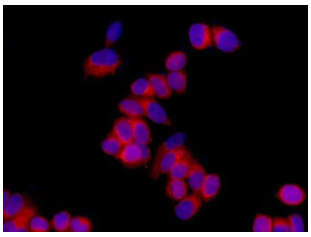


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Syntrophin alpha 1 antibody [EPR14828] - BSA and Azide free (ab239008)

Syntrophin alpha 1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Syntrophin alpha 1 antibody

Immunohistochemical analysis of paraffin-embedded Human bladder transitional cell carcinoma tissue labeling Syntrophin alpha 1 with ab188873 at 1/500 dilution followed by prediluted HRP Polymer for Rabbit IgG. Counter stained with Hematoxylin.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab188873).

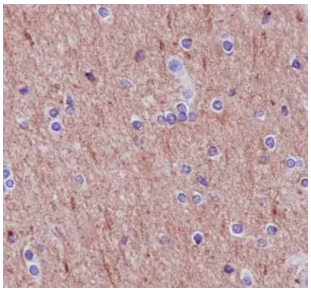
Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-Syntrophin alpha 1 antibody [EPR14828] - BSA and Azide free (ab239008)

Syntrophin alpha 1 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Syntrophin alpha 1 antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed MCF7 cells labeling Syntrophin alpha 1 with ab188873 at 1/250 dilution followed by Goat anti rabbit IgG (AlexaFluor® 555) secondary antibody at 1/200 dilution. Counter stained with DAPI (blue).
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab188873).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Syntrophin alpha 1 antibody [EPR14828] - BSA and Azide free (ab239008)

Syntrophin alpha 1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Syntrophin alpha 1 antibody

Immunohistochemical analysis of paraffin-embedded Human brain tissue labeling Syntrophin alpha 1 with ab188873 at 1/500 dilution followed by prediluted HRP Polymer for Rabbit IgG. Counter stained with Hematoxylin.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab188873).

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

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