abcam

Product datasheet

Anti-Syntrophin alpha 1 antibody [EPR14828] ab188873

Recombinant RabMAb

2 References 8 Images

Overview

Product name	Anti-Syntrophin alpha 1 antibody [EPR14828]
Description	Rabbit monoclonal [EPR14828] to Syntrophin alpha 1
Host species	Rabbit
Tested applications	**Suitable for:** Flow Cyt (Intra), IHC-P, ICC/IF, WB
Species reactivity	**Reacts with:** Mouse, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	HT29, HepG2, A549, MCF7, Human muscle and NIH 3T3 lysates; Human brain tissue and bladder transitional cell carcinoma tissue; MCF7 and HT29 cells.
General notes	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 production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 40% Glycerol (glycerin, glycerine), 59% PBS, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR14828
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab188873 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		1/280. **ab172730** - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
IHC-P		1/250 - 1/500. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
ICC/IF		1/250.
WB		1/1000 - 1/10000. Detects a band of approximately 54 kDa (predicted molecular weight: 54 kDa).

Target

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-biphosphate.

Tissue specificity High expression in skeletal muscle and heart. Low expression in brain, pancreas, liver, kidney and lung. Not detected in placenta.

Involvement in disease Defects in SNTA1 are the cause of long QT syndrome type 12 (LQT12) [MIM:612955]. A heart disorder characterized by a prolonged QT interval on the ECG and polymorphic ventricular arrhythmias. They cause syncope and sudden death in response to excercise or emotional stress, and can present with a sentinel event of sudden cardiac death in infancy.

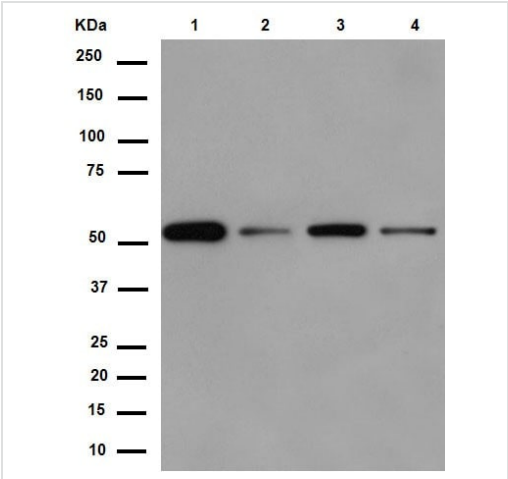
Sequence similarities Belongs to the syntrophin family.
Contains 1 PDZ (DHR) domain.
Contains 2 PH domains.
Contains 1 SU (syntrophin unique) domain.

Domain The PH 1 domain mediates the oligomerization in a calcium dependent manner, and the association with the phosphatidylinositol 4,5-biphosphate.
The PDZ domain binds to the last three or four amino acids of ion channels and receptor proteins. The association with dystrophin or related proteins probably leaves the PDZ domain available to recruit proteins to the membrane.
The SU domain binds calmodulin in a calcium-dependent manner.

Post-translational modifications Phosphorylated by CaM-kinase II. Phosphorylation may inhibit the interaction with DMD.

Cellular localization Cell membrane > sarcolemma. Cell junction. Cytoplasm > cytoskeleton. In skeletal muscle, it localizes at the cytoplasmic side of the sarcolemmal membrane and at neuromuscular junctions.

Images



Western blot - Anti-Syntrophin alpha 1 antibody [EPR14828] (ab188873)

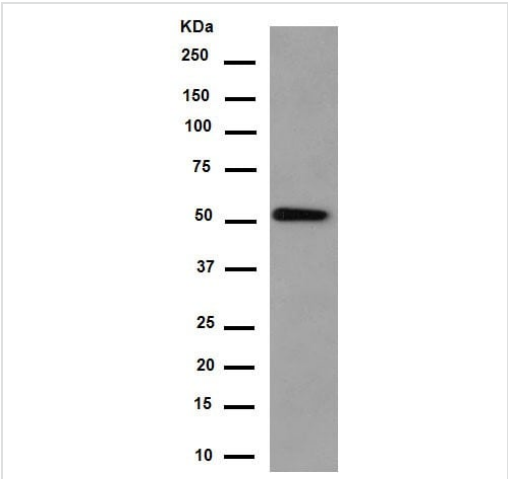
All lanes : Anti-Syntrophin alpha 1 antibody [EPR14828] (ab188873) at 1/1000 dilution

Lane 1 : HT29 lysate
Lane 2 : HepG2 lysate
Lane 3 : A549 lysate
Lane 4 : MCF7 lysate

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugate at 1/1000 dilution

Predicted band size: 54 kDa
Observed band size: 54 kDa

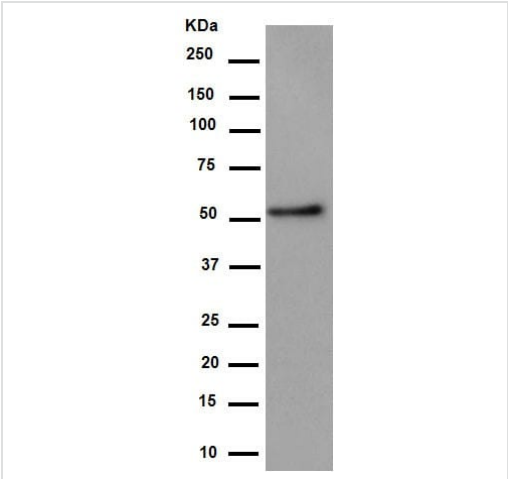


Western blot - Anti-Syntrophin alpha 1 antibody [EPR14828] (ab188873)

Anti-Syntrophin alpha 1 antibody [EPR14828] (ab188873) at 1/1000 dilution + Human muscle lysate at 10 µg

Secondary
Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/1000 dilution

Predicted band size: 54 kDa
Observed band size: 54 kDa



Western blot - Anti-Syntrophin alpha 1 antibody [EPR14828] (ab188873)

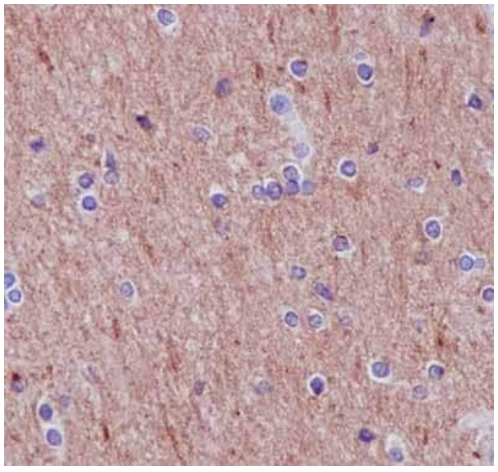
Anti-Syntrophin alpha 1 antibody [EPR14828] (ab188873) at 1/1000 dilution + NIH 3T3 lysate at 10 µg

Secondary

Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugate at 1/1000 dilution

Predicted band size: 54 kDa

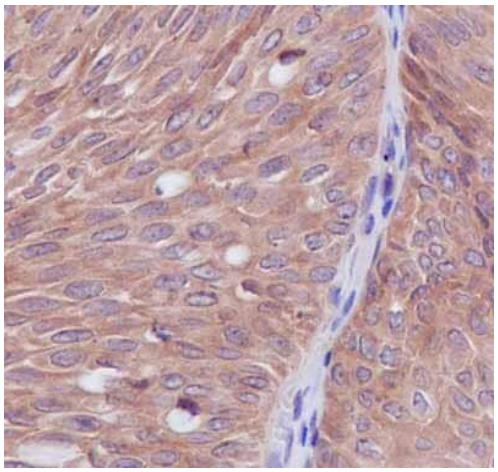
Observed band size: 54 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Syntrophin alpha 1 antibody [EPR14828] (ab188873)

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.

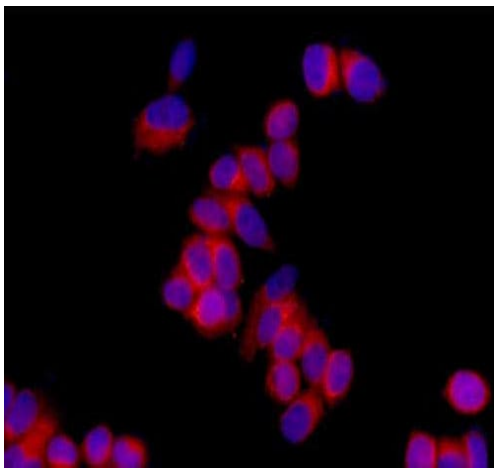
Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Syntrophin alpha 1 antibody [EPR14828] (ab188873)

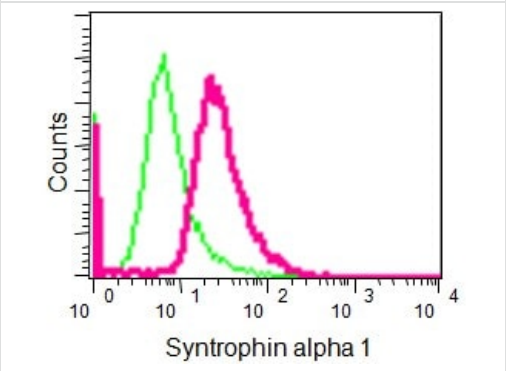
Immunohistochemical analysis of paraffin-embedded Human bladder transitional cell carcinoma tissue labeling Syntrophin alpha 1 with ab188873 at 1/500 dilution followed by prediluted HRP Polymer for Rabbit IgG. Counter stained with Hematoxylin.

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



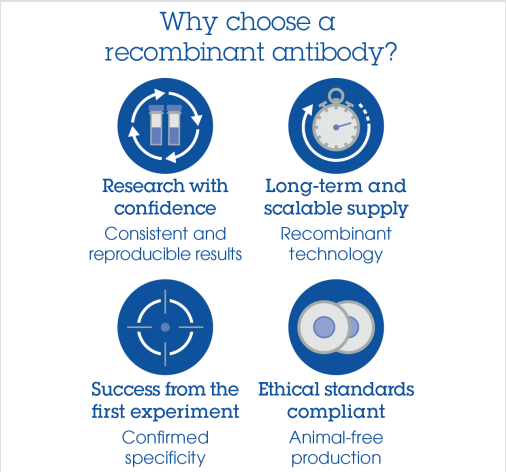
Immunocytochemistry/ Immunofluorescence - Anti-Syntrophin alpha 1 antibody [EPR14828] (ab188873)

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).



Flow Cytometry (Intracellular) - Anti-Syntrophin alpha 1 antibody [EPR14828] (ab188873)

Intracellular flow cytometric analysis of 2% paraformaldehyde-fixedHT29 cells labeling Syntrophin alpha 1with 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.



Anti-Syntrophin alpha 1 antibody [EPR14828] (ab188873)

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