abcam

ab276063

Anti-TSPAN1 antibody [010] - BSA and Azide free

Recombinant

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Recombinant Fragment Protein within Human Tetraspanin-1 aa 100 to C-terminus. The exact immunogen used to generate this antibody is proprietary information. Database link O60635
Carrier free	Yes
Clone number	010
Purification technique	Affinity purification Protein A
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	1/5000 - 1/20000

Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/25 - 1/100
Notes	-

Target data

See full target information Tetraspanin-1

Function	Structural component of specialized membrane microdomains known as tetraspanin-enriched microdomains (TERMs), which act as platforms for receptor clustering and signaling. Participates thereby in diverse biological functions such as cell signal transduction, adhesion, migration and protein trafficking (PubMed:30066932, PubMed:30291375). Regulates neuronal differentiation in response to NGF by facilitating NGF-mediated activation of NTRK1/TRKA receptor tyrosine kinase and subsequent downstream signaling pathways (By similarity). Plays a role in the inhibition of TNFalpha-induced apoptosis. Mechanistically, inhibits the NF-kappa-B signaling pathway by blocking phosphorylation of CHUK (PubMed:30291375). Also promotes the stability of the thiamine transporter 1/SLC19A2 in intestinal epithelial cells leading to an increase of thiamine uptake process (PubMed:21836059).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C

Supplementary info

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

Activity summary	TSPAN1 also known as Tetraspanin-1 is a protein encoded by the TSPAN1 gene. It is part of the tetraspanin family and is characterized by four transmembrane domains. This protein has a mass of approximately 25 kDa. TSPAN1 is mainly

	expressed in epithelial tissues including the skin lung and gastrointestinal tract. By forming complexes with other proteins TSPAN1 integrally contributes to various cellular processes like proliferation adhesion and migration through its role in organizing the cell membrane microdomains.
Biological function summary	TSPAN1 interacts with cell surface proteins to regulate important cellular activities. A notable characteristic of TSPAN1 is its involvement in the formation of the tetraspanin-enriched microdomains (TEMs). These microdomains facilitate interactions between various cell surface receptors and signaling molecules. This formation often includes integrins which play an important role in cell adhesion and signal transduction. TSPAN1 influences processes such as cell migration invasion and proliferation typically by modulating the activity of these integrins within the TEMs.
Pathways	TSPAN1 modulates the PI3K/Akt signaling pathway. The protein interacts with other tetraspanins and integrins to affect this signaling cascade which is critical for cell growth and survival. Additionally TSPAN1 connects with other signaling pathways that involve proteins like E-cadherin affecting cell-to-cell junctions and impacting epithelial integrity and function. These pathways highlight the diverse roles of TSPAN1 in maintaining cellular structure and function through its interactions.
Associated diseases and disorders	TSPAN1 shows strong associations with cancer progression particularly in gastric and colorectal cancers. The protein's role in cell proliferation and migration links it to these malignancies often showing overexpression in tumor tissues. In these cancers TSPAN1 interacts with proteins like integrins and PI3K driving oncogenic processes. Alterations in TSPAN1 expression or function may relate to disease prognosis indicating its potential as a biomarker or therapeutic target in cancer-related research.

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

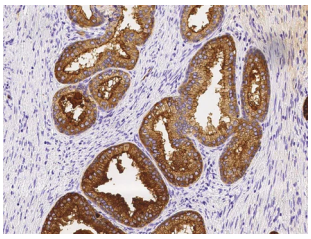
We do not recommend this combination. It is not covered by our product promise.

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.

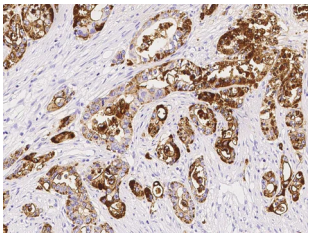
3 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TSPAN1 antibody [010] - BSA and Azide free (ab276063)

TSPAN1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-TSPAN1 antibody

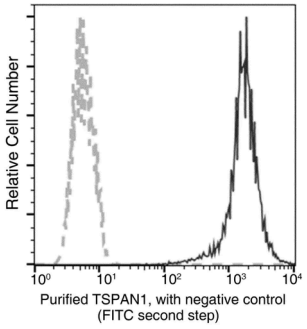
Immunochemical staining of human TSPAN1 in human prostate with ab276063 at 1/10000 dilution, formalin-fixed paraffin embedded sections).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TSPAN1 antibody [010] - BSA and Azide free (ab276063)

TSPAN1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-TSPAN1 antibody

Immunochemical staining of human TSPAN1 in human rectal cancer with ab276063 at 1/10000, formalin-fixed paraffin embedded sections.



Flow Cytometry (Intracellular) - Anti-TSPAN1 antibody [010] - BSA and Azide free (ab276063)

TSPAN1 Flow Cytometry (Intracellular) staining using rabbit Anti-TSPAN1 antibody

Intracellular flow cytometric analysis of Human TSPAN1 expression on SW480 cells. The cells were treated according to manufacturers manual, stained with purifiedab276063 then a FITC-conjugated secondary antibody. The Fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of intact cells.

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