abcam

ab272461

Anti-Tetraspanin-33 antibody [EPR23121-146] - 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	EPR23121-146
Purification technique	Affinity purification Protein A

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Recombinant fragment - Human, Mouse, Rat
Dilution info	-
Notes	-

Dot

Tested

Species	Recombinant fragment - Human
Dilution info	-
Notes	-

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

WB

Not recommended

Species	Human, Mouse, Rat, Recombinant fragment - Human
Dilution info	-
Notes	-

ICC/IF

Not recommended

Species	Human, Recombinant fragment - Human, Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Human, Mouse, Rat, Recombinant fragment - Human
Dilution info	-
Notes	-

IP

Not recommended

Species	Human, Recombinant fragment - Human, Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information TSPAN33

Function

Part of TspanC8 subgroup, composed of 6 members that interact with the transmembrane metalloprotease ADAM10. This interaction is required for ADAM10 exit from the endoplasmic reticulum and for enzymatic maturation and trafficking to the cell surface as well as substrate specificity. Different TspanC8/ADAM10 complexes have distinct substrates (PubMed:26686862, PubMed:30463011, PubMed:37516108). Plays an important role in normal erythropoiesis (By similarity). It has a role in the differentiation of erythroid progenitors (By similarity). Negatively regulates ligand-induced Notch activity probably by regulating ADAM10 activity (PubMed:26686862). Mediates docking of ADAM10 to zonula adherens by interacting with ADAM10 and, in a PDZD11-dependent manner, with the zonula adherens protein PLEKHA7 (PubMed:30463011).

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

ab272461 is the carrier-free version of ab238140.

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	Tetraspanin-33 also known as TSPAN33 or TSPN33 is a protein belonging to the tetraspanin family. It plays a role in organizing other proteins into functional complexes on the cell surface. Tetraspanin-33 weighs approximately 34 kDa and is mainly expressed in hematopoietic tissues which include the bone marrow and lymphoid organs. It is a transmembrane protein with four domains that spans the lipid bilayer influencing cell signaling by clustering with integrins and other membrane proteins.

Biological function summary	The organization of proteins into complexes forms an important function of Tetraspanin-33 in the immune system. It regulates cell adhesion migration and signaling impacting various types of immune responses. Tetraspanin-33 interacts with integrins forming tetraspanin-enriched microdomains. Such interactions stabilize the functional arrangements of signaling molecules ensuring precise communication and activation in immune cells.
Pathways	Tetraspanin-33 has influential roles in integrin-mediated signaling and immune response pathways. It modulates beta-1 integrin activity and works alongside proteins such as CD9 and CD81 which are also tetraspanins involved in the orchestration of cell adhesion and motility. The signaling modulated by Tetraspanin-33 plays key roles in mediating the cell-cell interactions needed for effective immune function providing a scaffold necessary for the activation and regulation of signaling cascades.
Associated diseases and disorders	Dysfunctions involving Tetraspanin-33 appear in immune system disorders and certain types of cancer. Aberrant expression or mutations can relate to conditions such as leukemia where Tetraspanin-33 interacts with proteins like CD53 another tetraspanin involved in immune cell signaling. Additionally alterations in Tetraspanin-33 function might contribute to autoimmune disorders highlighting its importance in maintaining immune system balance and responding to pathogens properly.

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

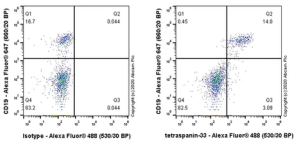
We do not recommend this combination. It is not covered by our product promise.

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.

2 product images



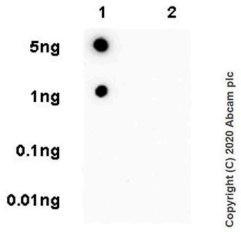
Flow Cytometry - Anti-Tetraspanin-33 antibody [EPR23121-146] - BSA and Azide free (ab272461)

Tetraspanin-33 Flow Cytometry staining using rabbit Anti-Tetraspanin-33 antibody

Flow cytometric analysis of human peripheral blood mononuclear cells (PBMC) treated with 1ug/ml human CD40 ligand and 100U/ml human IL-4 for 72h labeling Tetraspanin-33 with ab238140 at 1/500 dilution (Right) compared with a Rabbit monoclonal IgG Isotype control (ab172730) (Left). Goat anti-rabbit IgG (Alexa Fluor® 488, ab150077), at 1/2000 dilution was used as the secondary antibody.
Cells were stained with rabbit IgG (Left) or ab238140 (Right). Then stained with anti-CD19 conjugated to Alexa Fluor® 647.

Gated on viable cells.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab238140).



Dot Blot - Anti-Tetraspanin-33 antibody [EPR23121-146] - BSA and Azide free (ab272461)

Dot blot analysis of Tetraspanin-33 labeled with ab238140 at 1/1000 dilution.
Lane 1: Recombinant tetraspanin-33 fragment containing the sequence at the immunogen region.
Lane 2: BSA.

Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution was used as secondary antibody.

Blocking and dilution buffer: 5% NFDM/TBST.

Exposure time: 3 minutes.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab238140).

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