abcam

ab238976

Anti-TXNL1 antibody [EPR16061(B)] - BSA and Azide free

Recombinant | RabMAb | KO Validated

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	EPR16061(B)
Purification technique	Affinity purification Protein A

Reactivity data

WB

Tested

Species	Human
Dilution info	-
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Expected

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

Expected

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

Species	Rat
Dilution info	-

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

IHC-P

Tested

Species	Human
Dilution info	-
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Expected

Species	Mouse
Dilution info	-
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Rat
Dilution info	-
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Target data

See full target information TXNL1

Function	Active thioredoxin with a redox potential of about -250 mV.

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

ab238976 is the carrier-free version of ab188328.

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	The protein TXNL1 also known as thioredoxin-like-1 functions mechanically as a member of the thioredoxin family. It contains an active site with a redox-active disulfide bond which allows it to facilitate electron transfer reactions. TXNL1 has a molecular mass of approximately 32 kDa. This protein is expressed in various tissues with distinctive presence in the heart skeletal muscles and liver.
Biological function summary	TXNL1 plays a role in maintaining cellular redox homeostasis and regulates the oxidative stress response. It participates in the thioredoxin complex working alongside other thioredoxin family members to reduce oxidized proteins within cells. By restoring proteins to their functional state TXNL1 helps ensure proper cellular function and protects against damage from reactive oxygen species.
Pathways	The involvement of TXNL1 extends to key cellular signaling pathways including the Nrf2-mediated antioxidant pathway and the MAPK pathway. In the Nrf2 pathway TXNL1 impacts the regulation of antioxidant response elements supporting cell

	survival under stress conditions. Within the MAPK pathway it interacts with signaling proteins such as JNK modulating stress responses and apoptosis.
Associated diseases and disorders	TXNL1 shows a connection to conditions like cardiovascular disease and neurodegenerative disorders. Its role in oxidative stress makes it relevant in cardiovascular disease where imbalance in redox homeostasis contributes to disease progression. In neurodegenerative disorders interactions of TXNL1 with proteins such as Nrf2 play part in modulating neuronal survival and apoptosis highlighting its potential influence on disease mechanisms.

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

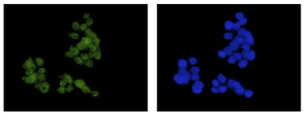
We do not recommend this combination. It is not covered by our product promise.

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.

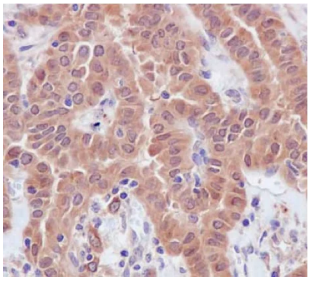
4 product images



Immunocytochemistry/ Immunofluorescence - Anti-TXNL1 antibody [EPR16061(B)] - BSA and Azide free (ab238976)

TXNL1 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-TXNL1 antibody

Immunofluorescent analysis of HCT-116 cells (paraformaldehyde-fixed, 4%) labeling TXNL1 with ab188328 at 1/250 dilution followed by Goat anti rabbit IgG (AlexaFluor® 488) secondary at 1/200 dilution and 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 (ab188328).

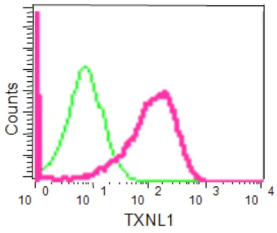


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TXNL1 antibody [EPR16061(B)] - BSA and Azide free (ab238976)

TXNL1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-TXNL1 antibody

Immunohistochemical analysis of paraffin-embedded Human thyroid papillary adenocarcinoma tissue labeling TXNL1 with ab188328 at 1/250 dilution followed by pre-diluted HRP Polymer for Rabbit IgG secondary antibody and 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 (ab188328).

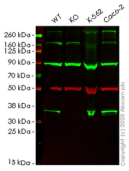
Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-TXNL1 antibody [EPR16061(B)] - BSA and Azide free (ab238976)

TXNL1 Flow Cytometry (Intracellular) staining using rabbit Anti-TXNL1 antibody

Intracellular flow cytometric analysis of 293 cells (paraformaldehyde-fixed, 2%) labeling TXNL1 with ab188328 at 1/80 dilution (red) or a rabbit IgG (negative) (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 (ab188328).



Western blot - Anti-TXNL1 antibody [EPR16061(B)] - BSA and Azide free (ab238976)

TXNL1 Western blot staining using rabbit Anti-TXNL1 antibody

This data was developed using ab188328, the same antibody clone in a different buffer formulation.
Lanes 1-4: Merged signal (red and green). Green - ab188328 observed at 32 kDa. Red - loading control ab7291 observed at 50 kDa.

ab188328 Anti-TXNL1 antibody [EPR16061(B)] - N-terminal was shown to specifically react with TXNL1 in wild-type HEK293T cells. Loss of signal was observed when knockout cell line ab266413 (knockout cell lysate ab258258) was used. Wild-type and TXNL1 knockout samples were subjected to SDS-PAGE. ab188328 and Anti-alpha Tubulin antibody [DM1A] - Loading Control (ab7291) were incubated overnight at 4°C at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (ab216776) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.

All lanes:
Western blot - Anti-TXNL1 antibody [EPR16061(B)] - N-terminal (ab188328) at 1/1000 dilution

Lane 1:
Wild-type HEK293T cell lysate at 20 µg

Lane 2:
TXNL1 knockout HEK293T cell lysate at 20 µg

Lane 3:
K-562 cell lysate at 20 µg

Lane 4:
Caco-2 cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (ab216773) at 1/10000 dilution

Predicted band size: 32 kDa

Observed band size: 32 kDa

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