abcam

ab250148

Anti-TPTE antibody [EPR11867(2)] - BSA and Azide free

Recombinant | RabMAb | Advanced Validation

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	EPR11867(2)
Purification technique	Affinity purification Protein A
Concentration	1.026 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
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.

mIHC

Tested

Species	Human
Dilution info	-
Notes	-

Target data

See full target information Putative tyrosine-protein phosphatase TPTE

Function	Could be involved in signal transduction.

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

ab250148 is the carrier-free version of ab180137.

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	TPTE (Transmembrane Phosphatidylinositol 3-phosphatase and Tensin homolog) functions as a phosphatase involved in dephosphorylation of phosphoinositides. The transmembrane protein is also referred as TPIP (TPTE and PTEN homologous Inositol lipid Phosphatase) and has a molecular mass around 65 kDa. It shows expression in the liver prostate and testis tissues. TPTE can modulate signaling cascades through hydrolyzing phosphoinositides affecting downstream intracellular pathways.
Biological function summary	TPTE proteins play roles in phosphoinositide signaling and influence cellular processes like proliferation and survival. It functions similarly to the PTEN phosphatase which is part of a larger signaling network controlling cellular functions. The presence of TPTE in certain tissues suggests it also contributes to tissue-specific roles possibly involving phosphoinositide metabolism.
Pathways	TPTE influences the Akt signaling pathway by modifying phosphoinositide levels. This pathway is essential in regulating cell growth and survival involving interaction with proteins such as PI3K. Also TPTE connects to apoptosis signaling through modulating lipid phosphatase activity affecting proteins like PIP3 that play a role in survival pathways.
Associated diseases and disorders	Researchers studied TPTE's potential connection to prostate cancer and its similarities to PTEN might provide insight into its role in tumor suppression.

Aberrant function or expression of TPTE may parallel issues with PTEN impacting phosphoinositide signaling and contributing to oncogenesis. Furthermore TPTE-related studies also suggest relevance in metabolic disorders due to its enzyme activity that could influence insulin signaling pathways.

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

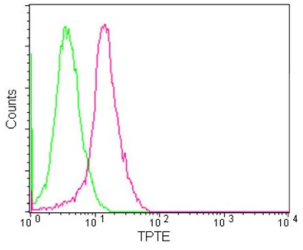
We do not recommend this combination. It is not covered by our product promise.

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.

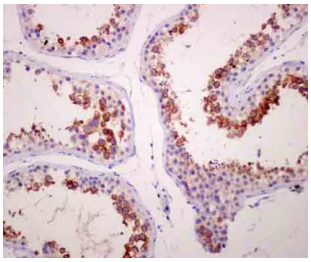
4 product images



Flow Cytometry (Intracellular) - Anti-TPTE antibody [EPR11867(2)] - BSA and Azide free (ab250148)

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

This data was developed using ab180137, the same antibody clone in a different buffer formulation.
Intracellular flow cytometric analysis of 2% paraformaldehyde fixed PC3 cells labeling TPTE with ab180137 at 1/10 dilution. Secondary antibody Goat anti rabbit IgG (FITC) at 1/75 dilution. Isotype control Rabbit IgG

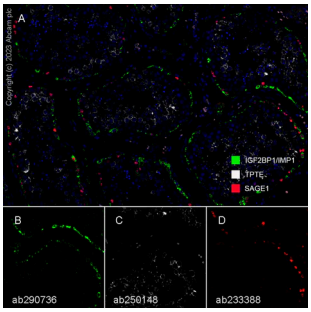


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TPTE antibody [EPR11867(2)] - BSA and Azide free (ab250148)

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

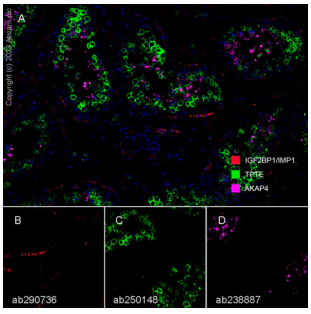
This data was developed using ab180137, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin-embedded Human testis tissue labeling TPTE with ab180137 at 1/500 dilution. Secondary antibody Goat anti rabbit IgG(HRP) prediluted. Counter stain Hematoxylin.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Multiplex immunohistochemistry - Anti-TPTE antibody [EPR11867(2)] - BSA and Azide free (ab250148)

Fluorescence multiplex immunohistochemical analysis of formalin/PFA-fixed paraffin-embedded Human testis tissue. Panel A: Merged staining of anti-IGF2BP1/IMP1 (green; Opal™690), anti-TPTE (gray; Opal™520) and anti-SAGE1 (red; Opal™570) on human testis. Panel B: Anti-IGF2BP1/IMP1 stained on cytoplasm of spermatogonia. Panel C: Anti-TPTE stained on spermatocytes. Panel D: Anti-SAGE1 stained on nucleus of spermatogonia. The section was incubated in three rounds of staining: in the order of ab290736, ab250148, and ab233388 for 30 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system.The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit. Image acquisition was performed with Leica SP8 confocal microscope. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins. Counterstained with DAPI.



Multiplex immunohistochemistry - Anti-TPTE antibody [EPR11867(2)] - BSA and Azide free (ab250148)

Fluorescence multiplex immunohistochemical analysis of formalin/PFA-fixed paraffin-embedded Human testis tissue. Panel A: Merged staining of anti-AKAP4 (magenta; Opal™690), anti-TPTE (green; Opal™520) and anti-IGF2BP1/IMP1 (red; Opal™570) on human testis. Panel B: Anti-IGF2BP1/IMP1 stained on spermatogonia. Panel C: Anti-TPTE stained on spermatocytes. Panel D: Anti-AKAP4 stained on spermatids. The section was incubated in three rounds of staining: in the order of ab238887, ab250148, and ab290736 for 30 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system. The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit. Image acquisition was performed with Leica SP8 confocal microscope. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins. Counterstained with DAPI.

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