abcam

ab180177

Anti-Tripeptidyl peptidase II/TPPII antibody [EPR13202]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR13202
Purification technique	Affinity purification Protein A
Concentration	0.349 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	1/50 - 1/100
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

IP

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000 - 1/10000
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/100 - 1/250
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/10 - 1/100
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information Tripeptidyl-peptidase 2

Function	Cytosolic tripeptidyl-peptidase that releases N-terminal tripeptides from polypeptides and is a component of the proteolytic cascade acting downstream of the 26S proteasome in the ubiquitin-proteasome pathway (PubMed:25525876, PubMed:30533531). It plays an important role in intracellular amino acid homeostasis (PubMed:25525876). Stimulates adipogenesis (By similarity).

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C

Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

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.

Supplementary info

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

Activity summary	Tripeptidyl peptidase II (TPPII) also known as TPP2 is a large peptidase complex that mechanistically degrades oligopeptides into tripeptides. It consists of a massive molecular complex with a molecular mass of approximately 5-6 MDa. TPPII is ubiquitously expressed in various tissues with high expression levels in the liver muscle and kidney. This complex is cytosolic and possesses unique endopeptidase and exopeptidase activities which makes it distinct in both structure and function from the proteasome.
Biological function summary	TPPII is an enzyme that plays a vital role in the regulation of intracellular protein turnover and antigen processing. It contributes to protein degradation especially when proteasome activities are inhibited or overwhelmed. TPPII operates in a complex and involves the dynamic assembly of its subunits to form a functional peptidase complex. Through its action TPPII maintains protein homeostasis and assists in generating peptides presented by MHC class I molecules important for immune surveillance.
Pathways	TPPII functions within the ubiquitin-proteasome system and the antigen presentation pathway. It acts as a backup to the proteasome ensuring continued protein degradation. TPPII interacts with proteins such as ubiquitin and E3 ligases which tag proteins for degradation. During antigen processing TPPII complements proteasome activity by processing longer peptides into shorter ones suitable for MHC class I presentation thereby interfacing with molecules like TAP and the proteasome subunits.

Associated diseases and disorders	Dysregulation of TPPII is associated with conditions such as cancer and neurodegenerative diseases. The upregulation of TPPII has been observed in several tumors implicating its role in promoting cell survival and proliferation. In cancer TPPII may interact with proteins such as p53 affecting apoptosis and cell cycle regulation. In neurodegenerative diseases altered TPPII function might influence protein aggregation and degradation pathways where it might relate with proteins like tau and amyloid-beta contributing to disease progression.

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

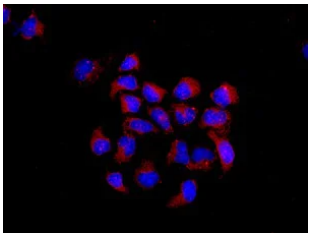
We do not recommend this combination. It is not covered by our product promise.

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.

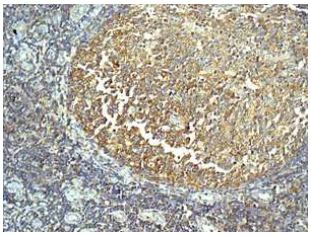
4 product images



Immunocytochemistry/ Immunofluorescence - Anti-Tripeptidyl peptidase II/TPPII antibody [EPR13202] (ab180177)

Tripeptidyl peptidase II/TPPII Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Tripeptidyl peptidase II/TPPII antibody

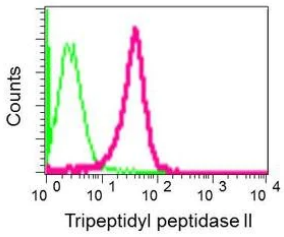
Immunofluorescent analysis of HeLa cells labeling Tripeptidyl peptidase II/TPPII with ab180177 at 1/100 (red) and DAPI staining (blue).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Tripeptidyl peptidase II/TPPII antibody [EPR13202] (ab180177)

Tripeptidyl peptidase II/TPPII Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Tripeptidyl peptidase II/TPPII antibody

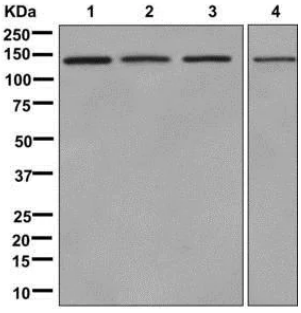
Immunohistochemical analysis of paraffin embedded Human tonsil tissue labeling Tripeptidyl peptidase II/TPPII with ab180177 at 1/50.
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-Tripeptidyl peptidase II/TPPII antibody [EPR13202] (ab180177)

Tripeptidyl peptidase II/TPPII Flow Cytometry (Intracellular) staining using rabbit Anti-Tripeptidyl peptidase II/TPPII antibody

Intracellular flow cytometrical analysis of permeabilized Jurkat cells labeling Tripeptidyl peptidase II/TPPII with ab180177 at 1/10 (red) or a rabbit IgG (negative) (green).



Western blot - Anti-Tripeptidyl peptidase II/TPPII antibody [EPR13202] (ab180177)

Tripeptidyl peptidase II/TPPII Western blot staining using rabbit Anti-Tripeptidyl peptidase II/TPPII antibody

All lanes:
Western blot - Anti-Tripeptidyl peptidase II/TPPII antibody [EPR13202] (ab180177) at 1/1000 dilution

Lane 1:
Jurkat cell lysate at 10 µg

Lane 2:
HeLa cell lysate at 10 µg

Lane 3:
HepG2 cell lysate at 10 µg

Lane 4:
Fetal liver tissue lysate at 10 µg

Predicted band size: 138 kDa

Observed band size: 138 kDa

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