abcam

ab184178

Anti-TPGS1 antibody [EPR14324]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 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	EPR14324
Purity	Tissue culture supernatant

Reactivity data

IP

Tested

Species	Human
Dilution info	1/20
Notes	-

Expected

Species	Mouse, Rat

Dilution info	Use at an assay dependent concentration.
Notes	-

WB

Tested

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

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

Expected

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

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/50
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Expected

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

Target data

See full target information TPGS1

Function	Subunit of the tubulin polyglutamylase complex (TPGC). The complex mediates cilia and flagella polyglutamylation which is essential for their biogenesis and motility (Probable). May act in the targeting of the tubulin polyglutamylase complex. Required for the development of the spermatid flagellum (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	TPGS1 also known as TPR Glycosylation Sensor 1 functions primarily as a sensor and regulator of glycosylation within the cell. Its molecular mass is approximately 85 kDa and it predominantly localizes in the endoplasmic reticulum membrane where it plays an important role in monitoring N-linked glycosylation processes. TPGS1 is expressed in various tissues showing higher levels in organs like the liver and pancreas which are integral to metabolism and detoxification processes.
Biological function summary	The TPGS1 protein interacts with glycoproteins to ensure correct folding and function important for maintaining cellular homeostasis. It frequently operates in association with complexes involved in protein processing particularly those related to the calnexin/calreticulin cycle. TPGS1 contributes to quality control by detecting improperly glycosylated proteins directing them for degradation to prevent accumulation of defective proteins which could disrupt cellular function.
Pathways	TPGS1 plays important roles in the unfolded protein response (UPR) and the endoplasmic reticulum-associated degradation (ERAD) pathways. Within these pathways TPGS1 works closely with proteins such as BiP/GRP78 and EDEM which facilitate the identification and disposal of misfolded glycoproteins. By modulating protein folding and degradation TPGS1 helps maintain ER function and prevent stress conditions that could affect the entire cellular network.
Associated diseases and disorders	TPGS1 has connections with neurodegenerative diseases and congenital disorders of glycosylation. Mismanagement of glycoproteins due to TPGS1 malfunction can contribute to neurodegenerative conditions where protein aggregation becomes problematic. In congenital glycosylation disorders TPGS1's interaction with proteins like TMEM165 may lead to incorrect glycosylation patterns resulting in varied systemic symptoms. Understanding TPGS1's role in these pathological conditions may aid in developing potential therapeutic strategies.

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

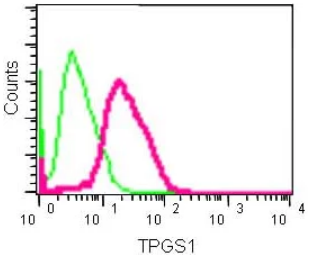
We do not recommend this combination. It is not covered by our product promise.

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.

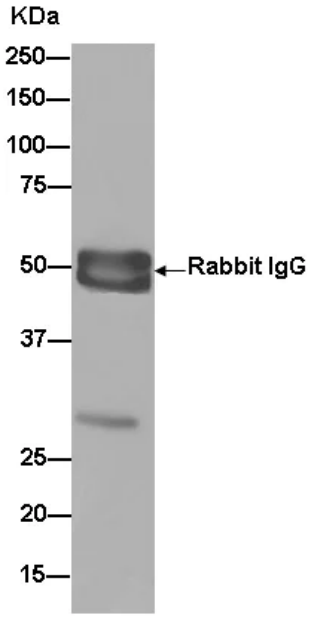
4 product images



Flow Cytometry (Intracellular) - Anti-TPGS1 antibody [EPR14324] (ab184178)

TPGS1 Flow Cytometry (Intracellular) staining using rabbit Anti-TPGS1 antibody

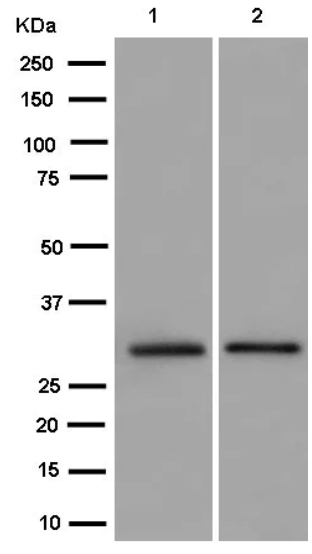
Intracellular Flow Cytometry analysis of 2% paraformaldehyde fixed SH-SY5Y cells staining TPGS1 using ab184178 at 1/50 and FITC conjugated Goat anti rabbit IgG at 1/150 as a secondary antibody (red curve), and a Rabbit monoclonal IgG negative control (green curve).



Immunoprecipitation - Anti-TPGS1 antibody [EPR14324] (ab184178)

Immunoprecipitation analysis of SH-SY5Y cells labeling TPGS1 using ab184178 at 1/50 dilution. A Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 was used as secondary antibody.
All lanes:
Immunoprecipitation - Anti-TPGS1 antibody [EPR14324] (ab184178)

Predicted band size: 31 kDa



Western blot - Anti-TPGS1 antibody [EPR14324] (ab184178)

All lanes:
Western blot - Anti-TPGS1 antibody [EPR14324] (ab184178) at 1/2000 dilution

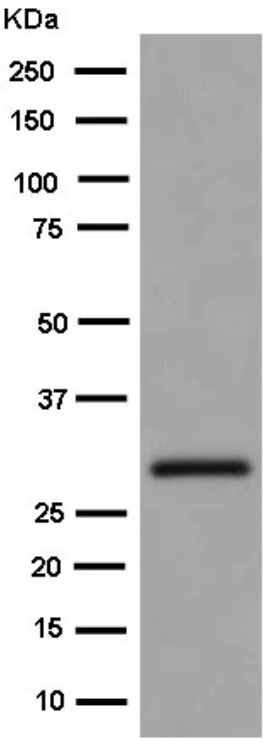
Lane 1:
Rat testis tissue lysate at 20 µg

Lane 2:
SH-SY5Y cell lysate at 20 µg

Secondary

All lanes:
Peroxidase conjugated Goat anti-Rabbit IgG (H+L) at 1/1000 dilution

Predicted band size: 31 kDa



Western blot - Anti-TPGS1 antibody [EPR14324] (ab184178)

TPGS1 Western blot staining of Mouse testis tissue lysate using rabbit Anti-TPGS1 antibody

All lanes:
Western blot - Anti-TPGS1 antibody [EPR14324] (ab184178) at 1/10000 dilution

All lanes:
Mouse testis tissue lysate at 20 µg

Secondary

All lanes:
Peroxidase conjugated Goat anti-Rabbit IgG (H+L) at 1/1000 dilution

Predicted band size: 31 kDa

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