abcam

ab198508

Anti-Ribophorin I antibody [EPR17043(B)] - N-terminal

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	EPR17043(B)
Purification technique	Affinity purification Protein A
Concentration	1.161 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Human
Dilution info	1/2000
Notes	-

Expected

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

ICC/IF

Tested

Species	Human
Dilution info	1/250
Notes	-

Expected

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

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/100
Notes	-

Expected

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

IHC-P

Tested

Species	Rat
Dilution info	1/500
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Human
Dilution info	1/500
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 Dolichyl-diphosphooligosaccharide--protein glycosyltransferase subunit 1

Function	Subunit of the oligosaccharyl transferase (OST) complex that catalyzes the initial transfer of a defined glycan (Glc(3)Man(9)GlcNAc(2) in eukaryotes) from the lipid carrier dolichol-pyrophosphate to an asparagine residue within an Asn-X-Ser/Thr consensus motif in nascent polypeptide chains, the first step in protein N-glycosylation (PubMed:31831667). N-glycosylation occurs cotranslationally and the complex associates with the Sec61 complex at the channel-forming translocon complex that mediates protein translocation across the endoplasmic reticulum (ER). All subunits are required for a maximal enzyme activity (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	Ribophorin I also known as RPN1 is a glycoprotein with a mass of approximately 68 kDa. It is located in the rough endoplasmic reticulum (ER) and is part of the oligosaccharyltransferase complex which is involved in the N-linked glycosylation of nascent polypeptides. This protein facilitates the unanimous transfer of oligosaccharides to asparagine residues in polypeptide chains an important step in protein maturation. Ribophorin I shows expression in various tissues but is especially prominent in the liver and pancreas where high levels of protein synthesis occur.
Biological function summary	Ribophorin I plays an essential role in the process of protein folding and quality control within the ER. It is part of the oligosaccharyltransferase complex along with other key proteins like STT3A/B and Ribophorin II. The complex ensures that nascent proteins receive the proper glycosylation necessary for proper folding and stability. This process helps maintain a balance between protein production and degradation ensuring that only properly folded proteins proceed to their intended cellular locations.
Pathways	Ribophorin I functions within the N-linked glycosylation pathway critical for protein maturation and function. Also it takes part in the unfolded protein response pathway which reacts to stress conditions that disrupt the folding processes in the ER. This pathway involves other proteins such as BiP/GRP78 and ATF6 which work together to restore normal protein folding conditions. Ribophorin I's efficient function in these pathways is key to sustaining cellular operations maintaining protein homeostasis.
Associated diseases and disorders	Ribophorin I is implicated in cancer and neurodegenerative diseases. Its malfunction can disrupt protein glycosylation and folding contributing to the progression of cancer by allowing aberrant glycoproteins on the cell surface. In neurodegenerative disorders like Alzheimer's disease impaired N-linked glycosylation affects protein folding leading to aggregation of misfolded proteins. Ribophorin I interacts indirectly with proteins such as amyloid precursor protein (APP) in Alzheimer's influencing the disease pathology through related glycosylation processes.

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.

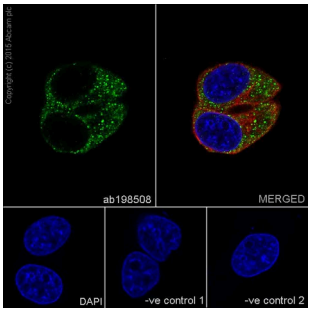
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

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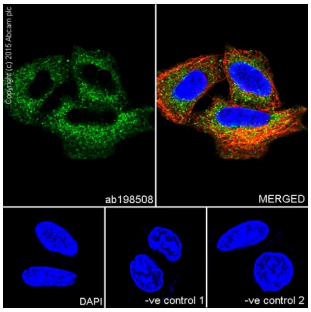
7 product images



Immunocytochemistry/ Immunofluorescence - Anti-Ribophorin I antibody [EPR17043(B)] - N-terminal (ab198508)

Ribophorin I Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Ribophorin I antibody

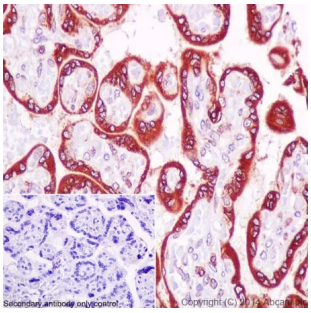
Immunofluorescent analysis of 100% Methanol-fixed, 0.1% Triton X-100 permeabilized MCF7 (Human breast adenocarcinoma cell line) cells labeling Ribophorin I with ab198508 at 1/500 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) secondary antibody at 1/500 dilution (green). Cytoplasm staining on MCF7 cell line was observed. The nuclear counter stain is DAPI (blue). Tubulin is detected with ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution and ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution (red).
The negative controls are as follows:
-ve control 1: ab198508 at 1/500 dilution followed by ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution.
-ve control 2: ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution followed by ab150077 (Alexa Fluor®488 Goat Anti-Rabbit IgG H&L) at 1/500 dilution.



Immunocytochemistry/ Immunofluorescence - Anti-Ribophorin I antibody [EPR17043(B)] - N-terminal (ab198508)

Ribophorin I Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Ribophorin I antibody

Immunofluorescent analysis of 100% Methanol-fixed, 0.1% Triton X-100 permeabilized HeLa (Human epithelial cells from cervix adenocarcinoma) cells labeling Ribophorin I with ab198508 at 1/500 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) secondary antibody at 1/500 dilution (green). Cytoplasm staining on HeLa cell line was observed. The nuclear counter stain is DAPI (blue). Tubulin is detected with ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution and ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution (red).
The negative controls are as follows:
-ve control 1: ab198508 at 1/500 dilution followed by ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution.
-ve control 2: ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution followed by ab150077 (Alexa Fluor®488 Goat Anti-Rabbit IgG H&L) at 1/500 dilution.

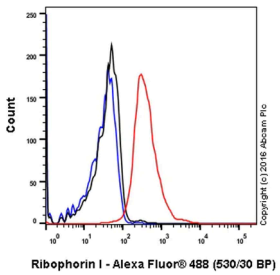


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Ribophorin I antibody [EPR17043(B)] - N-terminal (ab198508)

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

Immunohistochemical analysis of paraffin-embedded Human placenta tissue labeling Ribophorin I with ab198508 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Cytoplasm staining on Human placenta tissue is observed. Counter stained with Hematoxylin.
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

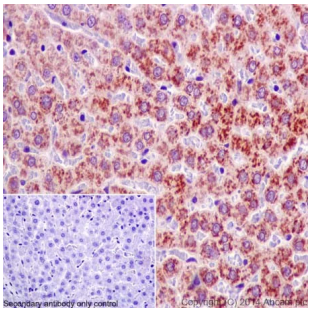
Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-Ribophorin I antibody [EPR17043(B)] - N-terminal (ab198508)

Ribophorin I Flow Cytometry (Intracellular) staining using rabbit Anti-Ribophorin I antibody

Intracellular Flow Cytometry analysis of HeLa cells labelling Ribophorin I (red) with purified ab198508 at dilution of 1/100. The secondary antibody used was Alexa Fluorr® 488 goat-anti-rabbit IgG (1/2000). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. Isotype control antibody was Rabbit monoclonal IgG (black). The blue line shows cells without incubation with primary antibody and secondary antibody.

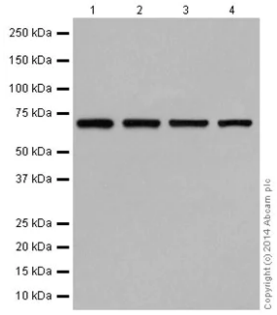


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Ribophorin I antibody [EPR17043(B)] - N-terminal (ab198508)

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

Immunohistochemical analysis of paraffin-embedded rat liver tissue labeling Ribophorin I with ab198508 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Cytoplasm staining on rat liver tissue is observed. Counter stained with Hematoxylin. Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

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



Western blot - Anti-Ribophorin I antibody [EPR17043(B)] - N-terminal (ab198508)

Ribophorin I Western blot staining using rabbit Anti-Ribophorin I antibody

Blocking/Dilution buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-Ribophorin I antibody [EPR17043(B)] - N-terminal (ab198508) at 1/5000 dilution

Lane 1:
BxPC-3 (Human pancreas adenocarcinoma cells) cell lysate at 20 µg

Lane 2:
HepG2 (Human liver hepatocellular carcinoma) cell lysate at 20 µg

Lane 3:
HeLa (Human epithelial cells from cervix adenocarcinoma) cell lysate at 20 µg

Lane 4:
PC-3 (Human prostate cancer cell line) cell lysate at 20 µg

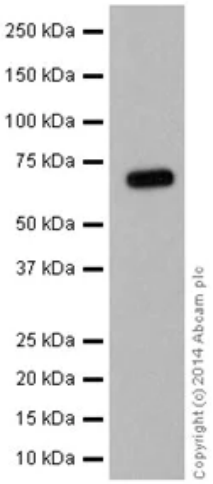
Secondary

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

Predicted band size: 69 kDa

Observed band size: 69 kDa

Exposure time: 15s



Western blot - Anti-Ribophorin I antibody [EPR17043(B)] - N-terminal (ab198508)

Ribophorin I Western blot staining of Human fetal liver lysate using rabbit Anti-Ribophorin I antibody

Blocking/Dilution buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-Ribophorin I antibody [EPR17043(B)] - N-terminal (ab198508) at 1/2000 dilution

All lanes:
Human fetal liver lysate at 10 µg

Secondary

All lanes:
Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/1000 dilution

Predicted band size: 69 kDa

Observed band size: 69 kDa

Exposure time: 15s

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