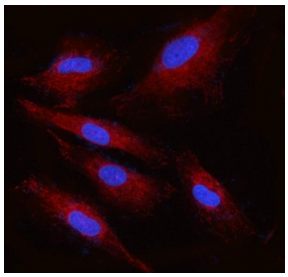
Ribophorin II Antibody / RPN2 (RQ7872)

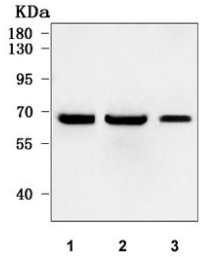
Catalog No.	Formulation	Size
RQ7872	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

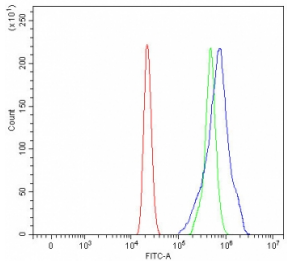
Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P04844
Localization	Cytoplasm (ER)
Applications	Western Blot : 0.5-1ug/ml Immunofluorescence (FFPE) : 5ug/ml Flow Cytometry : 1-3ug/million cells Direct ELISA : 0.1-0.5ug/ml Immunohistochemistry (FFPE) : 2-5ug/ml
Limitations	This Ribophorin II antibody is available for research use only.



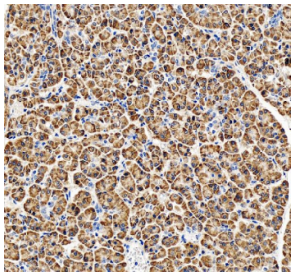
Immunofluorescent staining of FFPE human U-87 MG cells with Ribophorin II antibody (red) and DAPI nuclear stain (blue). HIER: steam section in pH6 citrate buffer for 20 min.



Western blot testing of human 1) ThP-1, 2) HepG2 and 3) T-47D cell lysate with Ribophorin II antibody. Predicted molecular weight ~69 kDa.



Flow cytometry testing of human HL60 cells with Ribophorin II antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= Ribophorin II antibody.



IHC staining of FFPE human pancreatic cancer tissue with Ribophorin II antibody, HRP-secondary and DAB substrate. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.

Description

Ribophorin II antibody is a valuable research tool for studying protein glycosylation, endoplasmic reticulum (ER) function, and cell biology. The encoded protein, RPN2, is an integral component of the oligosaccharyltransferase (OST) complex, which catalyzes the transfer of oligosaccharides to nascent polypeptide chains during N-linked glycosylation. This co-translational modification is essential for proper folding, stability, and function of many secretory and membrane proteins. By contributing to OST activity, RPN2 plays a critical role in ensuring protein quality control and maintaining ER homeostasis.

Ribophorin II interacts with other OST subunits to form the active catalytic machinery that operates in the ER lumen. Through its role in N-glycosylation, RPN2 supports diverse biological processes ranging from receptor maturation to immune system function. Disruption of RPN2 impairs glycoprotein production and can cause misfolding or ER stress, highlighting its central importance in cell physiology.

RPN2 has been increasingly studied in the context of disease. Elevated expression of ribophorin II has been observed in multiple cancers, including breast, colorectal, and liver cancers. High levels of RPN2 have been linked to chemoresistance, particularly to docetaxel treatment, where it influences drug efflux pathways and survival signaling. As a result, ribophorin II has attracted attention as both a biomarker of prognosis and a potential therapeutic target in oncology. Beyond cancer, RPN2 dysfunction may affect immune regulation and protein folding disorders, although these areas are still under active investigation.

At the molecular level, ribophorin II contributes to the structural integrity of the OST complex and ensures efficiency of glycosylation. Studies suggest that RPN2 stabilizes protein-protein interactions within the complex and may influence substrate specificity. These functions make ribophorin II indispensable for maintaining the fidelity of protein synthesis and processing in the secretory pathway.

The Ribophorin II antibody is commonly applied in western blotting, immunohistochemistry, immunofluorescence, and

flow cytometry to measure protein expression and localization. Such applications are particularly useful in cancer biology, ER stress research, and studies of protein glycosylation. For scientists investigating secretory pathways, therapeutic resistance, or cellular quality control, the Ribophorin II antibody is a reliable detection reagent. NSJ Bioreagents provides validated antibodies that deliver reproducible and accurate results for advanced molecular research.

Application Notes

Optimal dilution of the Ribophorin II antibody should be determined by the researcher.

Immunogen

E. coli-derived recombinant human protein (amino acids Q64-Q174) was used as the immunogen for the Ribophorin II antibody.

Storage

After reconstitution, the Ribophorin II antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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