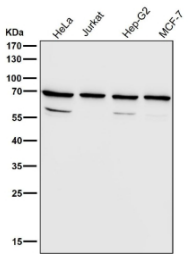
RPN1 Antibody / Ribophorin I [clone 32R32] (FY13254)

Catalog No.	Formulation	Size
FY13254	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA	100 ul

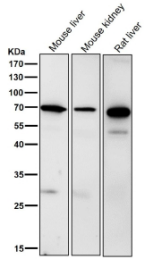
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	2-3 weeks
Species Reactivity	Human, Rat
Format	Liquid
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	32R32
Purity	Affinity chromatography
Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
UniProt	P04843
Applications	Western blot: 1:500-1:2000 Immunohistochemistry: 1:50-1:200 Immunocytochemistry/Immunofluorescence: 1:50-1:200 Flow Cytometry: 1:50
Limitations	This RPN1 antibody is available for research use only.



Western blot testing of human samples using the RPN1 antibody at 1:3000 dilution for 1 hour at room temperature. A predominant band is detected at an approximately 68 kDa in all samples, consistent with the mature N-glycosylated ER membrane protein ribophorin I described in the literature. Additional weaker bands between roughly 50 and 60 kDa, likely represent truncated or processed RPN1 species generated during normal ER associated degradation rather than distinct full length isoforms.



Western blot testing of mouse samples using the RPN1 antibody at 1:3000 dilution for 1 hour at room temperature. A predominant band is detected at an approximately 68 kDa in all samples, consistent with the mature N-glycosylated ER membrane protein ribophorin I described in the literature. Additional weaker bands between roughly 50 and 60 kDa, particularly in rodent liver, likely represent truncated or processed RPN1 species generated during normal ER associated degradation rather than distinct full length isoforms.

Description

RPN1 antibody detects Ribophorin I, encoded by the RPN1 gene. Ribophorin I is an integral membrane glycoprotein of the rough endoplasmic reticulum and a component of the oligosaccharyltransferase complex. This complex mediates the transfer of core oligosaccharides to nascent polypeptides, a key step in protein N linked glycosylation. RPN1 antibody provides researchers with an important reagent to study protein maturation, endoplasmic reticulum function, and secretory pathway biology.

Protein glycosylation is a critical post translational modification that ensures proper folding, stability, and function of many secreted and membrane proteins. Research using RPN1 antibody has shown that Ribophorin I contributes to substrate recognition and complex stability within the oligosaccharyltransferase machinery. By supporting efficient glycosylation, RPN1 plays a vital role in quality control and trafficking of glycoproteins through the secretory pathway.

Studies with RPN1 antibody have revealed that disruption of Ribophorin I function impairs N linked glycosylation, leading to misfolded proteins and activation of endoplasmic reticulum stress responses. Persistent dysfunction contributes to protein misfolding diseases and disorders of glycoprotein biosynthesis. This makes RPN1 a critical factor in maintaining protein homeostasis.

In cancer biology, RPN1 expression has been linked to tumor progression and therapeutic resistance. Research using RPN1 antibody has demonstrated that overexpression of Ribophorin I supports increased protein synthesis and folding capacity in tumor cells, enabling rapid proliferation and adaptation to stress. Elevated levels of RPN1 have been associated with poor prognosis in certain cancers, positioning it as a potential biomarker.

RPN1 antibody is widely used in western blotting, immunohistochemistry, and immunofluorescence. Western blotting confirms protein expression and size, immunohistochemistry localizes RPN1 in rough endoplasmic reticulum rich tissues, and immunofluorescence reveals perinuclear reticular distribution. These applications make RPN1 antibody indispensable in research on protein folding and secretion.

By providing validated RPN1 antibody reagents, NSJ Bioreagents supports studies into glycosylation, endoplasmic reticulum biology, and cancer research. Detection of Ribophorin I allows researchers to investigate how secretory pathway components regulate protein maturation and disease.

Application Notes

Optimal dilution of the RPN1 antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human Ribophorin I was used as the immunogen for the RPN1 antibody.

Storage

Store the RPN1 antibody at -20oC.

Copyright © NSJ Bioreagents. All rights reserved.