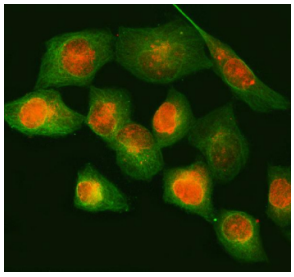
NUP88 Antibody / Nuclear pore complex protein Nup88 / Nucleoporin 88 (FY13123)

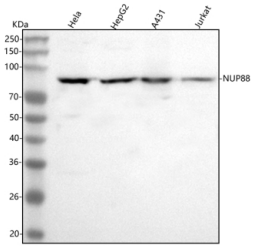
Catalog No.	Formulation	Size
FY13123	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

Availability	1-2 days
Species Reactivity	Human
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	Q99567
Localization	Nuclear
Applications	Western Blot: 0.25-0.5ug/ml Immunocytochemistry: 5ug/ml Immunofluorescence: 5ug/ml ELISA: 0.1-0.5ug/ml
Limitations	This NUP88 antibody is available for research use only.



Immunofluorescent staining of NUP88 using anti-NUP88 antibody (red) and anti-Beta Tubulin antibody (green). NUP88 was detected in immunocytochemical section of human HELA cell. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/ml rabbit anti-NUP88 antibody and mouse anti-Beta Tubulin antibody overnight at 4oC. Cy3 Conjugated Goat Anti-Rabbit IgG and FITC Conjugated Goat Anti-Mouse IgG were used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37oC. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Western blot analysis of NUP88 using anti-NUP88 antibody. Lane 1: human Hela whole cell lysates, Lane 2: human HepG2 whole cell lysates, Lane 3: human whole cell lysates, Lane 4: human Jurkat whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-NUP88 antibody at 0.5 ug/ml overnight at 4oC, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal was developed using enhanced chemiluminescent. The expected molecular weight of NUP88 is ~88 kDa.

Description

NUP88 antibody detects Nuclear pore complex protein Nup88, a structural component of the nuclear pore complex that regulates nucleocytoplasmic transport. The UniProt recommended name is Nuclear pore complex protein Nup88 (NUP88). This protein interacts with other nucleoporins to facilitate the bidirectional exchange of macromolecules between the nucleus and cytoplasm, maintaining cellular communication and homeostasis.

Functionally, NUP88 antibody identifies a 741-amino-acid nucleoporin localized to the cytoplasmic face of the nuclear pore complex. NUP88 forms a subcomplex with NUP214 and NUP62 that assists in nuclear export of ribonucleoproteins and protein cargoes. It is also involved in spindle assembly and chromosome segregation during mitosis, highlighting its dual role in transport and cell cycle control.

The NUP88 gene is located on chromosome 17p13.1 and is ubiquitously expressed in proliferating cells. Its expression is dynamically regulated during mitosis and stress responses. NUP88Ã¯Â¿Â½s proper function ensures balanced nucleocytoplasmic transport and mitotic progression, while its mislocalization disrupts nuclear integrity.

Pathologically, overexpression of NUP88 has been linked to several cancers, including breast, colorectal, and hepatocellular carcinoma, where it promotes nuclear transport of oncogenic factors. Mutations in NUP88 cause neuromuscular and developmental disorders such as fetal akinesia deformation sequence. Research using NUP88 antibody supports studies in nuclear transport, mitosis, and tumor biology.

NUP88 antibody is validated for western blotting, immunohistochemistry, and immunofluorescence to detect nuclear pore complex proteins. NSJ Bioreagents provides NUP88 antibody reagents optimized for studies in cell biology, nuclear transport, and cancer research.

Structurally, Nuclear pore complex protein Nup88 contains coiled-coil domains that mediate interaction with other nucleoporins and a C-terminal alpha-helical region that anchors it within the nuclear envelope. This antibody aids in analyzing NUP88's role in nuclear transport and mitotic regulation.

Application Notes

Optimal dilution of the NUP88 antibody should be determined by the researcher.

Immunogen

E.coli-derived human NUP88 recombinant protein (Position: E91-K584) was used as the immunogen for the NUP88 antibody.

Storage

After reconstitution, the NUP88 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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