

NUP62 Antibody / Nucleoporin 62 (FY12565)

Catalog No.	Formulation	Size
FY12565	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, Mouse
Format	Lyophilized
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	P37198
Applications	ELISA: 0.1-0.5ug/ml Immunofluorescence: 5ug/ml Immunohistochemistry: 2-5ug/ml Immunocytochemistry: 5ug/ml Western Blot: 0.25-0.5ug/ml Flow Cytometry: 1-3ug/million cells (Intracellular)
Limitations	This NUP62 antibody is available for research use only.

Description

NUP62 antibody detects Nucleoporin 62, a central channel component of the nuclear pore complex that mediates selective nucleocytoplasmic transport of macromolecules. NUP62 forms part of the symmetrical ring structure and contributes to the permeability barrier that controls RNA export and protein import. The NUP62 antibody is used in molecular biology, nuclear transport, and cell cycle research to investigate nuclear envelope dynamics and transport regulation.

NUP62 is encoded by the NUP62 gene located on human chromosome 19q13.32. The protein is approximately 520 amino acids long and contains multiple phenylalanine-glycine repeat motifs that create the selective barrier of the pore. NUP62 interacts with importins, exportins, and Ran GTPase to regulate directionality of cargo transport across the nuclear envelope.

The NUP62 antibody detects a 62 kilodalton band on western blot and shows punctate nuclear envelope staining by

immunofluorescence. NUP62 forms a subcomplex with NUP54 and NUP58 to create the central transport channel, undergoing dynamic conformational changes during translocation events. This structure selectively allows passage of karyopherin-bound cargo while excluding non-specific diffusion.

Beyond transport, NUP62 participates in mitosis, where portions of the nuclear pore disassemble to allow spindle formation and chromosome segregation. Mutations or mislocalization of NUP62 disrupt nuclear-cytoplasmic communication, leading to developmental defects and neurodegeneration. Autoantibodies against NUP62 have been identified in certain autoimmune diseases, reflecting its immunogenicity when nuclear integrity is compromised.

Through its integral role in nuclear transport and cell cycle progression, NUP62 maintains genome organization and communication between nuclear and cytoplasmic compartments. NSJ Bioreagents provides a validated NUP62 antibody optimized for western blot, immunofluorescence, and nuclear envelope imaging, supporting research into nucleocytoplasmic trafficking, mitotic control, and nuclear pore architecture.

Application Notes

Optimal dilution of the NUP62 antibody should be determined by the researcher.

Immunogen

E.coli-derived human NUP62 recombinant protein (Position: E404-D522) was used as the immunogen for the NUP62 antibody.

Storage

After reconstitution, the NUP62 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.