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NUP107 Antibody

Catalog # ASC10730

Product Information

Application	WB, IF, ICC, E
Primary Accession	P57740
Other Accession	P57740, 12230339
Reactivity	Human, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	106374
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	NUP107 antibody can be used for detection of NUP107 by Western blot at 1 - 2 g/mL. Antibody can also be used for immunocytochemistry starting at 2.5 g/mL. For immunofluorescence start at 10 g/mL.

Additional Information

Gene ID	57122
Other Names	Nuclear pore complex protein Nup107, 107 kDa nucleoporin, Nucleoporin Nup107, NUP107
Target/Specificity	NUP107;
Reconstitution & Storage	NUP107 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	NUP107 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	NUP107
Function	Plays a role in the nuclear pore complex (NPC) assembly and/or maintenance (PubMed:12552102, PubMed:15229283, PubMed:30179222). Required for the assembly of peripheral proteins into the NPC (PubMed:12552102, PubMed:15229283). May anchor NUP62 to the NPC (PubMed:15229283). Involved in nephrogenesis (PubMed:30179222).
Cellular Location	Nucleus membrane. Nucleus, nuclear pore complex. Chromosome, centromere, kinetochore. Note=Located on both the cytoplasmic and nuclear sides of the NPC core structure (PubMed:11564755). During mitosis, localizes

	to the kinetochores (PubMed:11564755). Dissociates from the disassembled NPC structure late during prophase of mitosis (PubMed:11564755)
Tissue Location	Ubiquitously expressed in fetal and adult tissues.

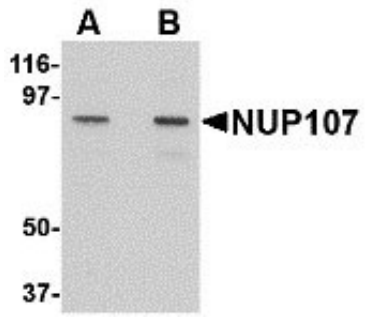
Background

NUP107 Antibody: The nuclear pore complex (NPC) is a protein assembly localized at the nuclear rim and mediates macromolecular transport between the nucleus and the cytoplasm. The mammalian nucleoporin (NUP)-107 is part of the hetero-oligomeric complex that also contains NUP160, NUP133, NUP96, and mammalian homolog of yeast sec13p. While the majority of the NUP107-160 nuclear pore sub-complex localizes to the nuclear pore, a small fraction is observed at kinetochores and pro-metaphase spindle poles in mitotic cells in association with proteins such as Mad1, Mad2, Bub3 and Cdc20. Immunodepletion of the NUP107-160 complex resulted in defective spindle assembly indicating that it has multiple functions. NUP107 has recently been identified as an HIV dependency factor (HDF), suggesting that NUP107 may be an important drug target in HIV treatment. Multiple isoforms of NUP107 are known to exist.

References

Tran EJ and Wente SR. Dynamic nuclear pore complex: life on the edge. Cell2006; 125:1041-53.
Boehmer T, Enninga J, Dales S, et al. Depletion of a single nucleoporin, Nup107, prevents the assembly of a subset of nucleoporins into the nuclear pore complex. Proc. Natl. Acad. Sci. USA2003; 100:981-5.
Orjalo AV, Arnaoutov A, Shen Z, et al. The Nup107-160 nucleoporin complex is required for correct bipolar spindle assembly. Mol. Bio. Cell2006; 17:3806-18.
Brass AL, Dykxhoorn DM, Benita Y, et al. Identification of host proteins required for HIV infection through a functional genomic screen. Science2008; 319:921-6.

Images

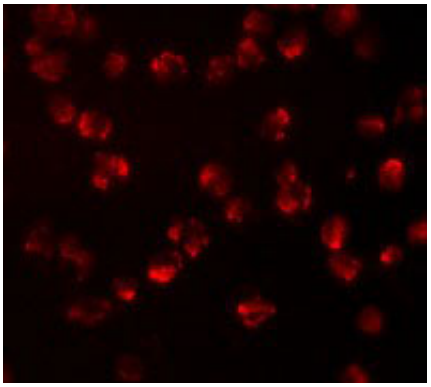


Western blot analysis of NUP107 in A549 cell lysate with NUP107 antibody at (A) 1 and (B) 2 µg/mL.



Immunocytochemistry of NUP107 in A549 cells with NUP107 antibody at 2.5 µg/mL.

Immunofluorescence of NUP107 in A549 cells with NUP107 antibody at 10 µg/mL.



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