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BM5527 Monoclonal Antibody to NUP153 - Supernatant

Alternate names: 153 kDa nucleoporin, Nuclear pore complex protein Nup153, Nucleoporin Nup153

Quantity: 5 ml

Background: Nuclear pore complexes are extremely elaborate structures that mediate the regulated

movement of macromolecules between the nucleus and cytoplasm. These complexes are composed of at least 100 different polypeptide subunits, many of which belong to

the nucleoporin family. Nucleoporins are pore complex specific glycoproteins

characterized by cytoplasmically oriented O linked N acetylglucosamine residues and numerous repeats of the pentapeptide sequence XFXFG. Nup153 has three distinct domains: a N terminal region within which a pore targeting domain has been identified, a central region containing multiple zinc finger motifs, and a C terminal region containing multiple XFXFG repeats. Nup153 is a possible DNA binding subunit of the nuclear pore complex (NPC). The repeat containing domain may be involved in

anchoring components of the pore complex to the pore membrane.

Uniprot ID: P49790

NCBI: NP 005115.2

GenelD: <u>9972</u>

Host / Isotype: Mouse / IgG1 Clone: nup7A8

Immunogen: Nuclear matrix protein fraction prepared from Rat liver nuclei

Format: State: Liquid Hybridoma Culture Supernatant

Preservatives: 0.09% Sodium Azide

Applications: Immunohistochemistry / Immunofluorescence Microscopy on Frozen Sections:

1/5-1/10 (also after fixation with paraformaldehyde). **Immunoblotting (Western blot):** 1/30-1/50 (ECL method).

Immunoprecipitation.
Incubation Time: 1h at RT.

Other applications not tested. Optimal dilutions are dependent on conditions and

should be determined by the user.

Specificity: The antibody recognizes the nuclear pore complex (NPC) protein nup153 (190 kD),

present on the inner aspect of NPC with attached filament bundles.

It is also reactive with the soluble form of nup153 found e.g. during meiotic metaphase. Epitope in Rat liver was mapped to N-terminal domain (aa439-611; cf.

Hase & Cordes, 2003).

Species: Human, Mouse, Rat, Kangaroo Rat, Amphibia (Xenopus, Pleurodeles).

Other species not tested.

Storage: Store the antibody undiluted at 2-8°C.

Shelf life: one year from despatch.



General Readings:

- 1. Cordes VC, Reidenbach S, Köhler A, Stuurman N, van Driel R, Franke WW. Intranuclear filaments containing a nuclear pore complex protein. J Cell Biol. 1993 Dec;123(6 Pt 1):1333-44. PubMed PMID: 8253834.
- 2. Cordes VC, Gajewski A, Stumpp S, Krohne G. Immunocytochemistry of annulate lamellae: potential cell biological markers for studies of cell differentiation and pathology. Differentiation. 1995 Apr;58(4):307-12. PubMed PMID: 7641981.
- 3. Cordes VC, Reidenbach S, Franke WW. Cytoplasmic annulate lamellae in cultured cells: composition, distribution, and mitotic behavior. Cell Tissue Res. 1996 May;284(2):177-91. PubMed PMID: 8625385.
- 4. Hase ME, Cordes VC. Direct interaction with nup153 mediates binding of Tpr to the periphery of the nuclear pore complex. Mol Biol Cell. 2003 May;14(5):1923-40. PubMed PMID: 12802065.