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NPM1 Antibody
Purified Mouse Monoclonal Antibody (Mab)
Catalog # AP53282

Specification

NPM1 Antibody - Product Information

Application	**WB**
Primary Accession	P06748
Reactivity	**Human, Mouse**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**
Calculated MW	**38 KDa**

NPM1 Antibody - Additional Information

Gene ID 4869

Other Names
B23;MGC104254;NMP1;NO38;NPM 1;NPM;NPM_HUMAN;NPM1;Nucleolar Phosphoprotein B23;Nucleolar protein NO38;Nucleophosmin (nucleolar phosphoprotein B23 numatrin);Nucleophosmin; Nucleophosmin/B23.2;Nucleophosmin/nucleoplasmin family member 1;Nucleoplasmin Family Member 1;Numatrin;OTTHUMP00000161024;OTTHUMP00000161025;OTTHUMP00000223397; OTTHUMP00000223398;TRK fused gene.

Dilution
WB~~1:1000

Format
Purified mouse monoclonal in buffer containing 0.1M Tris-Glycine (pH 7.4, 150 mM NaCl) with 0.09% (W/V) sodium azide, 50%,glycerol

Storage
Store at -20 °C.Stable for 12 months from date of receipt

NPM1 Antibody - Protein Information

Name NPM1 (HGNC:7910)

Synonyms NPM

Function
Involved in diverse cellular processes such as ribosome biogenesis, centrosome duplication, protein chaperoning, histone assembly, cell proliferation, and regulation of tumor suppressors p53/TP53 and ARF. Binds ribosome presumably to drive ribosome nuclear export. Associated with nucleolar ribonucleoprotein structures and bind single-stranded nucleic acids. Acts as a chaperonin for the core histones H3, H2B and H4. Stimulates APEX1 endonuclease activity on

apurinic/apyrimidinic (AP) double-stranded DNA but inhibits APEX1 endonuclease activity on AP single-stranded RNA. May exert a control of APEX1 endonuclease activity within nucleoli devoted to repair AP on rDNA and the removal of oxidized rRNA molecules. In concert with BRCA2, regulates centrosome duplication. Regulates centriole duplication: phosphorylation by PLK2 is able to trigger centriole replication. Negatively regulates the activation of EIF2AK2/PKR and suppresses apoptosis through inhibition of EIF2AK2/PKR autophosphorylation. Antagonizes the inhibitory effect of ATF5 on cell proliferation and relieves ATF5-induced G2/M blockade (PubMed:22528486). In complex with MYC enhances the transcription of MYC target genes (PubMed:25956029). May act as chaperonin or cotransporter in the nucleolar localization of transcription termination factor TTF1 (By similarity).

Cellular Location

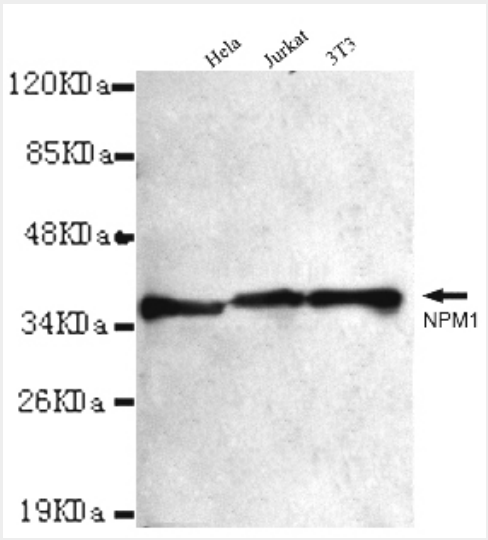
Nucleus, nucleolus. Nucleus, nucleoplasm. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome Note=Generally nucleolar, but is translocated to the nucleoplasm in case of serum starvation or treatment with anticancer drugs. Has been found in the cytoplasm in patients with primary acute myelogenous leukemia (AML), but not with secondary AML. Co-localizes with the methylated form of RPS10 in the granular component (GC) region of the nucleolus. Colocalized with nucleolin and APEX1 in nucleoli. Isoform 1 of NEK2 is required for its localization to the centrosome during mitosis. Can shuttle between cytoplasm and nucleus (PubMed:38231884)

NPM1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

NPM1 Antibody - Images



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Western blot detection of NPM1 in Hela,Jurkat and 3T3 cell lysates using NPM1 mouse mAb (1:1000 diluted).Predicted band size:33KDa.Observed band size:38KDa.

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NPM1 Antibody - References

Chan W.-Y.,et al.Biochemistry 28:1033-1039(1989).
Li X.,et al.Biochem. Biophys. Res. Commun. 163:72-78(1989).
Zhang X.T.,et al.Biochem. Biophys. Res. Commun. 164:176-184(1989).
Chan P.-K.,et al.Nucleic Acids Res. 25:1225-1232(1997).
Okuwaki M.,et al.Submitted (APR-2000) to the EMBL/GenBank/DDBJ databases.