

Anti-NPM1 / NPM / Nucleophosmin Antibody (clone NA24)

Mouse Anti Human Monoclonal Antibody
Catalog # ALS17793

Product Information

Application	IHC-P
Primary Accession	P06748
Predicted	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG,k
Clone Names	NA24
Calculated MW	32575

Additional Information

Gene ID	4869
Alias Symbol	NPM1
Other Names	NPM1, NPM, Nucleolar phosphoprotein B23, Nucleolar protein NO38, Numatrin, B23, Nucleophosmin
Target/Specificity	N-terminal
Reconstitution & Storage	Protein G purified
Precautions	Anti-NPM1 / NPM / Nucleophosmin Antibody (clone NA24) is for research use only and not for use in diagnostic or therapeutic procedures.

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).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.