

Anti-Nucleophosmin Antibody

Catalog # ABO11234

Product Information

Application	WB, IHC-P, ICC
Primary Accession	P06748
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Nucleophosmin(NPM1) detection. Tested with WB, IHC-P, ICC in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	4869
Other Names	Nucleophosmin, NPM, Nucleolar phosphoprotein B23, Nucleolar protein NO38, Numatrin, NPM1, NPM
Calculated MW	32575
Application Details	Immunocytochemistry , 0.5-1 μ g/ml, Human, Mouse, Rat Immunohistochemistry(Paraffin-embedded Section), 0.5-1 μ g/ml, Human, Rat, Mouse, By Heat Western blot, 0.1-0.5 μ g/ml, Human, Rat, Mouse
Subcellular Localization	Nucleus, nucleolus. Nucleus, nucleoplasm. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. 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. Can shuttle between cytoplasm and nucleus. 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.
Source	Eukaryota
Protein Name	Nucleophosmin
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg Thimerosal, 0.05mg NaN ₃ .
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human

Nucleophosmin(22-41aa ELKADKDYHFKVDNDENEHQ), identical to the related rat and mouse sequences.

Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20 °C for one year. After r ° Constitution, at 4 °C for one month. It ° Can also be aliquotted and stored frozen at -20 °C for a longer time.Avoid repeated freezing and thawing.
Sequence Similarities	Belongs to the nucleoplasmin family.

Protein Information

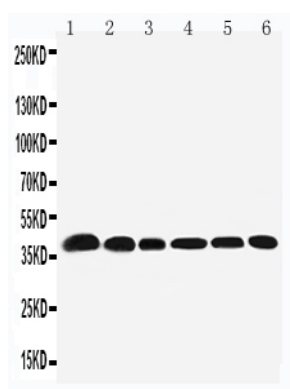
Name	NPM1 (HGNC:7910)
Synonyms	NPM
Function	Involved in diverse cellular processes such as ribosome biogenesis, centrosome duplication, protein chaperoning, histone assembly, cell proliferation, and regulation of tumor suppressors p53/TP53 and ARF. Binds ribosome presumably to drive ribosome nuclear 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).

Background

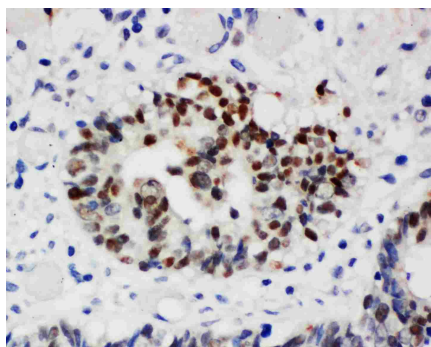
NPM1(Nucleophosmin/Nucleoplasmin family, member1), also known as NPM, nucleolar phosphoprotein B23 or numatrin, is a protein that in humans is encoded by the NPM1 gene. The NPM1 gene maps to chromosome 5q35. Chan et al.(1989) found that nucleophosmin is a nucleolar phosphoprotein that is more abundant in tumor cells than in normal resting cells. Stimulation of the growth of normal cells, e.g., mitogen activation of B lymphocytes, was accompanied by an increase in nucleophosmin protein level. They stated that nucleophosmin is likely involved in the assembly of ribosomal proteins into ribosomes. Electron microscopic study indicated that nucleophosmin is concentrated in the granular region of the nucleolus,

where ribosome assembly occurs.

Images



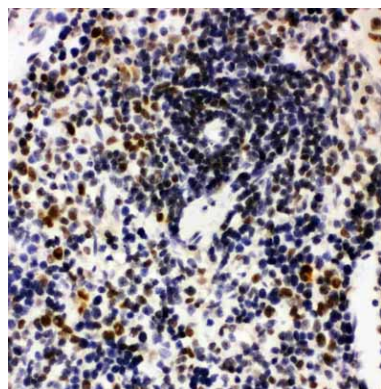
Anti-Nucleophosmin antibody, ABO11234, Western blotting
Lane 1: Rat Testis Tissue Lysate
Lane 2: Rat Brain Tissue Lysate
Lane 3: HELA Cell Lysate
Lane 4: U87 Cell Lysate
Lane 5: A549 Cell Lysate
Lane 6: SMMC Cell Lysate



Anti-Nucleophosmin antibody, ABO11234, IHC(P)
Human Intestinal Cancer Tissue



Anti-Nucleophosmin antibody, ABO11234, ICC
HELA Cell



Anti-Nucleophosmin antibody, ABO11234, IHC(P)
Rat Spleen Tissue

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