

Rabbit NPM Polyclonal Antibody | anti-NPM antibody

NPM Antibody

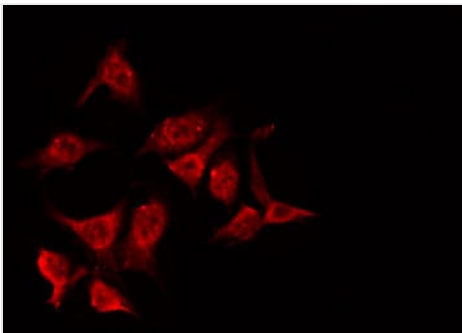
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA321030	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Western Blot

PRODUCT SYNONYMS

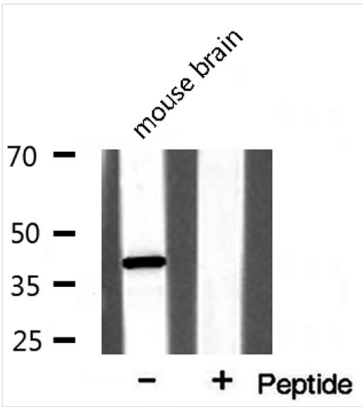
NPM; Polyclonal Antibody; NPM Antibody; B23; MGC104254; NO38; NPM_HUMAN; NPM1; Nucleolar phosphoprotein B23; Nucleolar protein NO38; Nucleophosmin (nucleolar phosphoprotein B23 numatrin); Nucleophosmin; nucleophosmin nucleoplasmin family member 1; Nucleophosmin/nucleoplasmin family member 1; Numatrin; OTTHUMP00000161024; OTTHUMP00000161025; OTTHUMP00000223397; OTTHUMP00000223398; anti-NPM antibody

PRODUCT SPECIFICATIONS

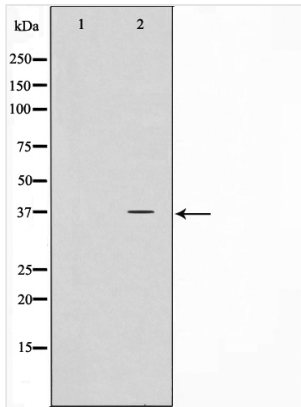
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	NPM antibody detects endogenous levels of NPM
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	259
Applicable Applications for anti-NPM antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), WB (Western Blot)
Immunogen	A synthesized peptide derived from human NPM
Subcellular Location	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.
Predicted Cross Reactivity	Pig, Bovine, Horse, Sheep, Rabbit, Dog
Similarity	Pig (100%), Bovine (90%), Horse (100%), Sheep (90%), Rabbit (100%), Dog (100%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



IF (Immunofluorescence)
AAA321030 staining HeLa by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.



WB (Western Blot)
Western blot analysis on mouse brain lysate using NPM Antibody



WB (Western Blot)
Western blot analysis on HeLa cell lysate using NPM Antibody, The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-NPM antibody	Description: NPM1 a nucleolar protein associated with nucleolar ribonucleoprotein structures and that binds single-stranded nucleic acids. Is a major component of template activating factor (TAF)-III. It plays a role in controlling centrosome duplication, and may function in the assembly and/or transport of the ribosome. Two alternatively spliced isoforms have been described. 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). Subunit Structure: Decamer formed by two pentameric rings associated in a head-to-head fashion (By similarity). Disulfide-linked dimers under certain conditions (PubMed:25818168). The SWAP complex consists of NPM1, NCL, PARP1 and SWAP70 (By similarity). Interacts with NSUN2 and SENP3. Interacts with hepatitis delta virus S-HDAg. Interacts with HTLV1 Rex protein (via N-terminal nuclear localization signal). Interacts with the methylated form of RPS10. Interacts (via N-terminal domain) with APEX1; the interaction is RNA-dependent and decreases in hydrogen peroxide-damaged cells. Interacts with isoform 1 of NEK2. Interacts with ROCK2 and BRCA2. Interacts with RPGR. Interacts with CENPW. Interacts with EIF2AK2/PKR. Interacts with CEBPA (isoform 4) (PubMed:20075868). Interacts with DDX31; this interaction prevents interaction between NPM1 and HDM2 (PubMed:23019224). Interacts with MYC; competitive with NOP53 (PubMed:25956029). Interacts with NOP53; the interaction is direct and competitive with MYC (PubMed:25956029). Interacts with LRRC34 (By similarity). Interacts with RRP1B (PubMed:19710015, PubMed:20926688). Post-translational Modifications: Acetylated at C-terminal lysine residues, thereby increasing affinity to histones. ADP-ribosylated. Phosphorylated at Ser-4 by PLK1 and PLK2. Phosphorylation at Ser-4 by PLK2 in S phase is required for centriole duplication and is sufficient to trigger centriole replication. Phosphorylation at Ser-4 by PLK1 takes place during mitosis. Phosphorylated by CDK2 at Ser-125 and Thr-199. Phosphorylation at Thr-199 may trigger initiation of centrosome duplication. Phosphorylated by CDK1 at Thr-199, Thr-219, Thr-234 and Thr-237 during cell mitosis. When these four sites are phosphorylated, RNA-binding activity seem to be abolished. May be phosphorylated at Ser-70 by NEK2. The Thr-199 phosphorylated form has higher affinity for ROCK2. CDK6 triggers Thr-199 phosphorylation when complexed to Kaposi's sarcoma herpesvirus (KSHV) V-cyclin, leading to viral reactivation by reducing viral LANA levels. Sumoylated by ARF. Ubiquitinated. Ubiquitination leads to proteasomal degradation. Deubiquitinated by USP36 (PubMed:19208757). Similarity: Belongs to the nucleoplasmin family.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	83641870
NCBI GeneID	4869
NCBI Accession #	NP_001032827.1
NCBI GenBank Nucleotide #	NM_001037738.2
UniProt Accession #	P06748; P08693; Q12826; Q13440; Q13441; Q14115; Q5EU94; Q5EU95; Q5EU96; A8K3N7; B5BU00; D3DQL6
Molecular Weight	Observed: 37 kDa Predicted: 33 kDa
NCBI Official Full Name	nucleophosmin isoform 3
NCBI Official Synonym Full Names	nucleophosmin 1
NCBI Official Symbol	NPM1
NCBI Official Synonym Symbols	B23; NPM
NCBI Protein Information	nucleophosmin

UniProt Protein Name	Nucleophosmin
UniProt Gene Name	NPM1
UniProt Synonym Gene Names	NPM; NPM

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/npm-antibody-immunocytochemistry-immunofluorescence-western-blot-elisa/321030>