

Anti-Nucleophosmin Picoband Antibody
Catalog # ABO12032**Specification**

Anti-Nucleophosmin Picoband Antibody - Product Information

Application	WB, IHC-P
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 in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-Nucleophosmin Picoband Antibody - Additional Information

Gene ID 4869

Other Names

Nucleophosmin, NPM, Nucleolar phosphoprotein B23, Nucleolar protein NO38, Numatrin, NPM1, NPM

Calculated MW

32575 MW KDa

Application Details

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat
Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

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.

Protein Name

Nucleophosmin

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg NaN₃.

Immunogen

E.coli-derived human Nucleophosmin recombinant protein (Position: M1-L294). Human Nucleophosmin shares 95% amino acid (aa) sequence identity with both mouse and rat Nucleophosmin.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, 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.

Anti-Nucleophosmin Picoband 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](http://www.uniprot.org/citations/22528486)). In complex with MYC enhances the transcription of MYC target genes (PubMed: [25956029](http://www.uniprot.org/citations/25956029)). May act as chaperonin or cotransporter in the nucleolar localization of transcription termination factor TTF1 (By similarity).

Cellular Location

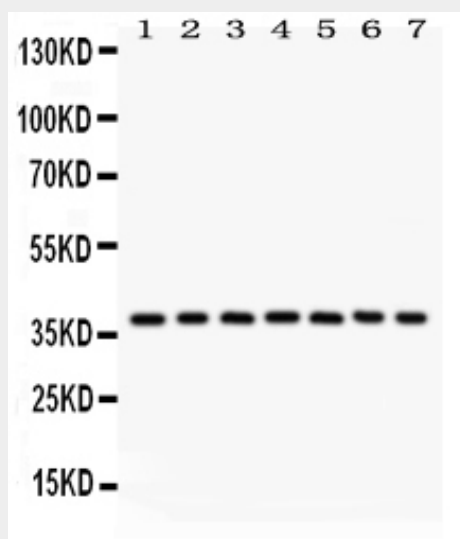
Nucleus, nucleolus. Nucleus, nucleoplasm. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome Note=Generally nucleolar, but is translocated to the nucleoplasm in case of serum starvation or treatment with anticancer drugs. Has been found in the cytoplasm in patients with primary acute 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)

Anti-Nucleophosmin Picoband Antibody - Protocols

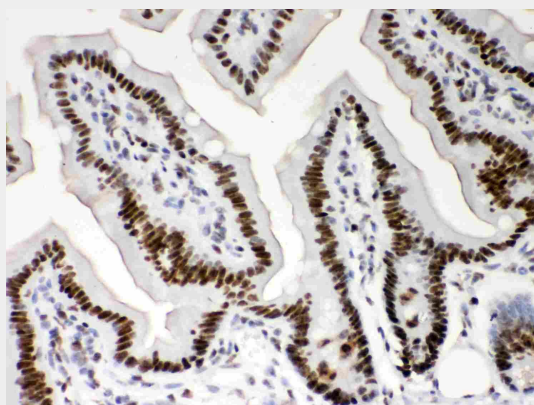
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

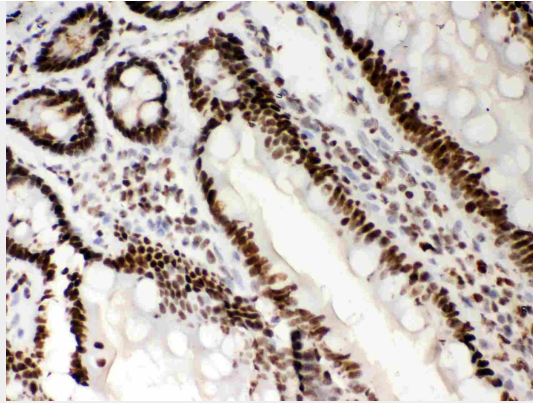
Anti-Nucleophosmin Picoband Antibody - Images



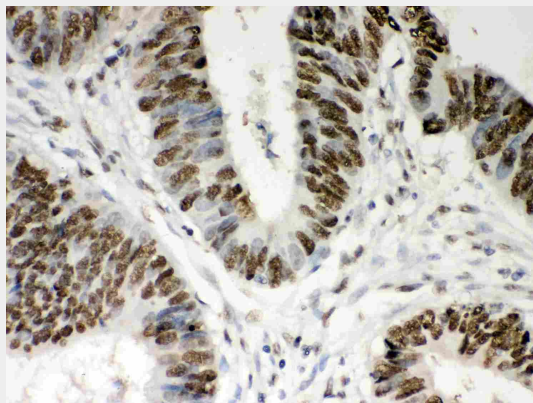
Anti- Nucleophosmin Picoband antibody, ABO12032, Western blotting
All lanes: Anti Nucleophosmin (ABO12032) at 0.5ug/ml
Lane 1: Rat Testis Tissue Lysate at 50ug
Lane 2: Mouse Testis Tissue Lysate at 50ug
Lane 3: SKOV Whole Cell Lysate at 40ug
Lane 4: HEPA Whole Cell Lysate at 40ug
Lane 5: JURKAT Whole Cell Lysate at 40ug
Lane 6: HUT Whole Cell Lysate at 40ug
Lane 7: HELA Whole Cell Lysate at 40ug
Predicted bind size: 33KD
Observed bind size: 38KD



Anti- Nucleophosmin Picoband antibody, ABO12032, IHC(P)
IHC(P): Mouse Intestine Tissue



Anti- Nucleophosmin Picoband antibody, ABO12032,IHC(P)IHC(P): Rat Intestine Tissue



Anti- Nucleophosmin Picoband antibody, ABO12032,IHC(P)IHC(P): Human Intestinal Cancer Tissue

Anti-Nucleophosmin Picoband Antibody - 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.