

# Nucleophosmin (PT0958R) PT™ Rabbit mAb

CatalogNo: YM8558 **Recombinant** 

## Key Features

### Host Species

- Rabbit

### Reactivity

- Human, Mouse, Rat

### Applications

- WB, IHC, IF, IP, ELISA

### MW

- 33kD (Calculated)  
38kD (Observed)

### Isotype

- IgG, Kappa

## Storage

**Storage\*** -15°C to -25°C/1 year (Do not lower than -25°C)

**Formulation** PBS, 50% glycerol, 0.05% Proclin 300, 0.05% BSA

## Recommended Dilution Ratios

**IHC 1:200-1:1000**

**WB 1:2000-1:10000**

**IF 1:200-1:1000**

**ELISA 1:5000-1:20000**

**IP 1:50-1:200**

## Basic Information

**Clonality** Monoclonal

**Clone Number** PT0958R

## Immunogen Information

**Immunogen** The specific immunogen used to produce this antibody is proprietary information.

**Specificity** Endogenous

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## | Target Information

**Gene name** NPM1 NPM

**Protein Name** Nucleophosmin

Organism	Gene ID	UniProt ID
Human	<a href="#">4869</a> ;	<a href="#">P06748</a> ;
Mouse	<a href="#">18148</a> ;	<a href="#">Q61937</a> ;
Rat	<a href="#">25498</a> ;	<a href="#">P13084</a> ;

**Cellular  
Localization**

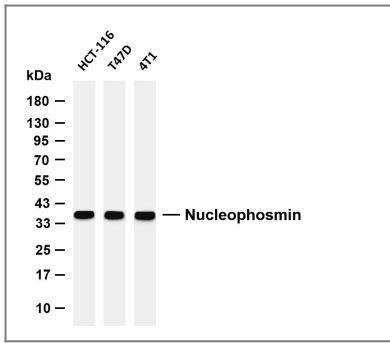
Nucleus , nucleolus . Nucleus , nucleoplasm . Cytoplasm , cytoskeleton , microtubule organizing center , centrosome . Generally nucleolar , but is translocated to the nucleoplasm in case of serum starvation or treatment with anticancer drugs. Has been found in the cytoplasm in patients with primary acute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

**Tissue specificity** Amnion ,B-cell lymphoma ,Bone marrow ,Brain ,Cervix carcinoma ,Colon carcinoma ,Epithelium ,Kidney

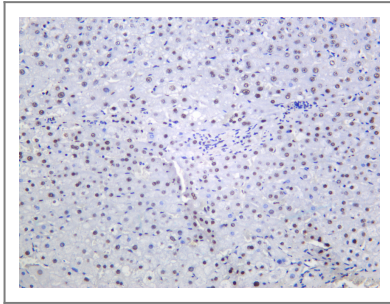
**Function**

Disease:A chromosomal aberration involving NPM1 is a cause of myelodysplastic syndrome (MDS) . Translocation t (3;5) (q25.1;q34) with MLF1. ,Disease:A chromosomal aberration involving NPM1 is found in a form of acute promyelocytic leukemia. Translocation t (5;17) (q32;q11) with RARA. ,Disease:A chromosomal aberration involving NPM1 is found in a form of non-Hodgkin lymphoma. Translocation t (2;5) (p23;q35) with ALK. The resulting chimeric NPM1-ALK protein homodimerize and the kinase becomes constitutively activated. ,Disease:Defects in NPM1 are associated with acute myelogenous leukemia (AML) . Mutations in exon 12 affecting the C-terminus of the protein are associated with an aberrant cytoplasmic location. ,Function:Involved in diverse cellular processes such as ribosome biogenesis , centrosome duplication , protein chaperoning , histone assembly , cell proliferation , and regulation of tumor suppressors TP53/p53 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. ,PTM:Acetylated at C-terminal lysine residues , thereby increasing affinity to histones. ,PTM:ADP-ribosylated. ,PTM:Phosphorylated at Ser-4 by PLK1. Phosphorylated by CDK2 at Ser-125 and Thr-199. Phosphorylation at Thr-199 may trigger initiation of centrosome duplication. Phosphorylated by CDC2 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. ,PTM:Sumoylated by ARF. ,similarity:Belongs to the nucleoplasmin family. ,subcellular location: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. ,subunit:Decamer formed by two pentameric rings associated in a head-to-head fashion. Disulfide-linked dimers under certain conditions. The SWAP complex consists of NPM1 , NCL , PARP1 and SWAP70 (By similarity) . Interacts with NSUN2. Interacts with hepatitis delta virus S-HDAg. ,

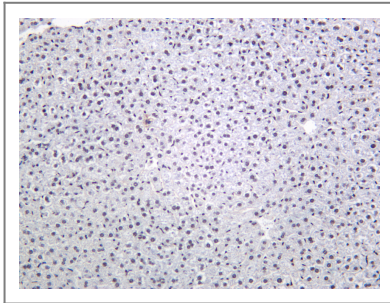
## Validation Data



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-Nucleophosmin (PT0958R) antibody. The HRP-conjugated Goat anti-Rabbit IgG (H + L) antibody was used to detect the antibody. Lane 1: HCT-116 Lane 2: T47D Lane 3: 4T1 Predicted band size: 33kDa Observed band size: 38kDa



Human liver was stained with anti-Nucleophosmin (PT0958R) Rabbit antibody



Mouse liver was stained with anti-Nucleophosmin (PT0958R) Rabbit antibody

## Contact information

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