

# Anti-Nucleophosmin Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

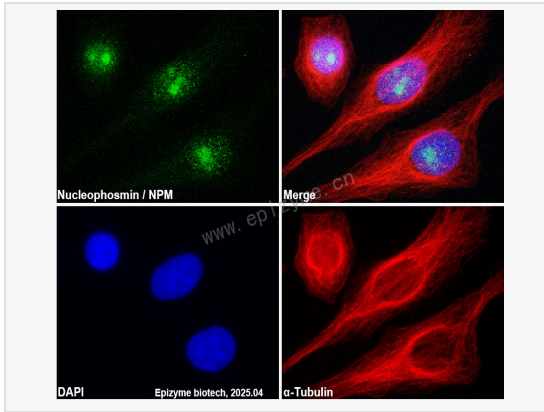
Catalog # R010342

## Product Information

|             |   |
|-------------|---|
| Application | WB, IHC-P/IF (Tissue-P), IF (Cell)/ICC, ELISA   |
| Reactivity  | Human   |
| Dilution    | WB 1:1,000~1:5,000; IHC-P 1:100~1:200; IF 1:100~1:200   |
| Host        | Rabbit  |
| Clonality   | Monoclonal  |
| Clone No.   | 47K12K10  |
| Isotype     | IgG   |
| Label       | Unconjugated  |
| Immunogen   | A synthesized peptide derived from human Nucleophosmin  |
| Format      | Affinity purified monoclonal antibody supplied in PBS with 0.01% sodium azide and 50% glycerol, pH 7.3.                     |
| Storage     | Shipped on wet ice. Store at -20°C. Stable for 24 months from date of receipt. Aliquoting is unnecessary for -20°C storage. |
| Precautions | Anti-Nucleophosmin Rabbit mAb [47K12K10] is for research use only and not for use in diagnostic or therapeutic procedures.  |

## Protein Information

|                   |  |
|-------------------|--|
| Synonyms          | B23, MGC104254, NO38, NPM, 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.  |
| Calculated MW     | Calculated MW: 33 kDa; Observed MW: 38 kDa   |
| Uniprot ID        | P06748   |
| Gene ID           | 4869   |
| Background        | The protein encoded by this gene is involved in several cellular processes, including centrosome duplication, protein chaperoning, and cell proliferation. The encoded phosphoprotein shuttles between the nucleolus, nucleus, and cytoplasm, chaperoning ribosomal proteins and core histones from the nucleus to the cytoplasm. This protein is also known to sequester the tumor suppressor ARF in the nucleolus, protecting it from degradation until it is needed. Mutations in this gene are associated with acute myeloid leukemia. Dozens of pseudogenes of this gene have been identified. [provided by RefSeq, Aug 2017] |
| Cellular 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 NFK2 is required for its localization to the     |



Immunofluorescence - Anti-Nucleophosmin Rabbit mAb [47K12K10]

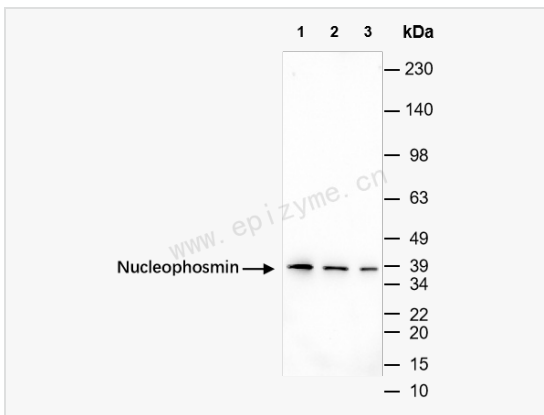
Sample: HeLa cells

The cells were fixed with 4% paraformaldehyde (10 min), permeabilized with 0.5% Triton X-100 for 10 minutes and then blocked with 5% BSA in 0.1% PBS-Tween for 0.5 hours.

Primary antibodies: R010342 at 1:100 dilution and  $\alpha$ -tubulin Mouse Monoclonal Antibody (Cat. No. LF209) at 1:100 dilution

Secondary antibodies: Goat anti-Rabbit (488) at 1:1,000 dilution (shown in green) and Goat anti-Mouse (555) at 1:1,000 dilution (shown in red)

Nuclei were stained with DAPI (shown in blue).



Western Blot - Anti-Nucleophosmin Rabbit mAb [47K12K10]

All lanes: R010342 at 1:5,000 dilution

Lane 1 : HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates

Lane 2 : A431 (Human epidermoid teratoma cell line) whole cell lysates

Lane 3 : HCT116 (Human colorectal carcinoma epithelial cell) whole cell lysates

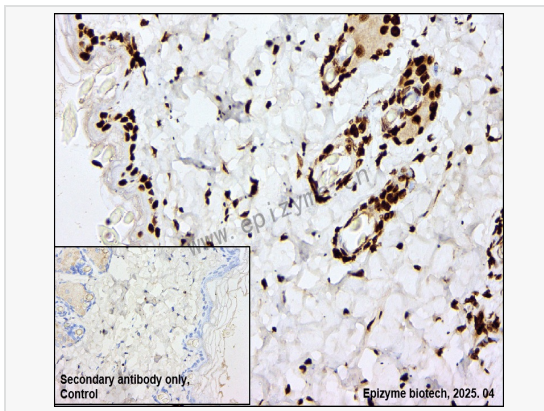
Lysates/proteins at 10  $\mu$ g per lane.

Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP Conjugated (Cat. No. LF102) at 1:5,000 dilution

Predicted band size: 33 kDa

Observed band size: 38 kDa

Developed using the ECL technique (Cat. No. SQ201).



Immunohistochemistry - Anti-Nucleophosmin Rabbit mAb [47K12K10]

Sample: Paraformaldehyde-fixed, paraffin embedded rat skin tissue

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.

Primary antibody: R010342 at 1:200 dilution

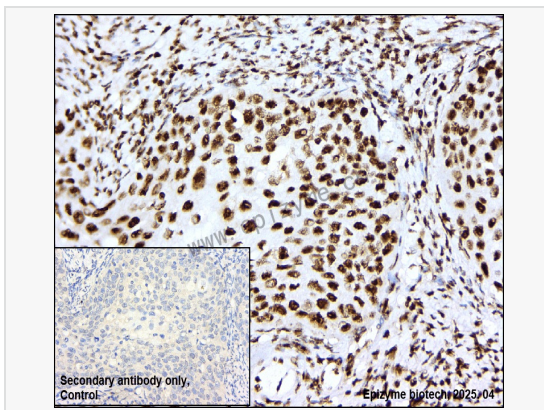
Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution

DAB was used as the chromogen.

Counter stained with hematoxylin.

Positive/negative staining were presented.

Only the secondary antibody was used as the negative control.



Immunohistochemistry - Anti-Nucleophosmin Rabbit mAb [47K12K10]

Sample: Paraformaldehyde-fixed, paraffin embedded human cervical cancer tissue

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.

Primary antibody: R010342 at 1:200 dilution

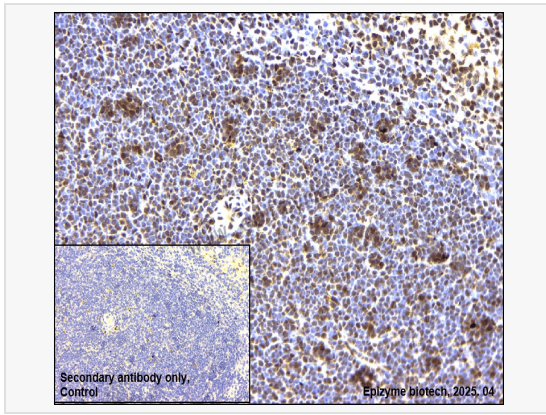
Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution

DAB was used as the chromogen.

Counter stained with hematoxylin.

Positive/negative staining were presented.

Only the secondary antibody was used as the negative control.



Immunohistochemistry - Anti-Nucleophosmin Rabbit mAb [47K12K10]

Sample: Paraformaldehyde-fixed, paraffin embedded mouse spleen tissue

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.

Primary antibody: R010342 at 1:200 dilution

Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution

DAB was used as the chromogen.

Counter stained with hematoxylin.

Positive/negative staining were presented.

Only the secondary antibody was used as the negative control.