

### **Product datasheet for TA384887**

### 9620 Medical Center Drive, Ste 200 Rockville, MD 20850, US Phone: +1-888-267-4436 https://www.origene.com techsupport@origene.com EU: info-de@origene.com CN: techsupport@origene.cn

OriGene Technologies, Inc.

# **Nucleophosmin (NPM1) Rabbit Polyclonal Antibody**

#### **Product data:**

Product Type:Primary AntibodiesApplications:ELISA, IF, IHC, WBRecommended Dilution:WB: 1/500-1/2000

IHC: 1/100-1/300 IF: 1/200-1/1000 ELISA: 1/40000

Reactivity: Human, Mouse, Rat

Host: Rabbit Isotype: IgG

Clonality: Polyclonal

**Immunogen:** The antiserum was produced against synthesized peptide derived from human NPM around

the phosphorylation site of Thr199. AA range:171-220 (Phosphorylated)

**Formulation:** Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide, pH 7.3.

**Concentration:** lot specific

**Purification:** Affinity Chromatography

Conjugation: Unconjugated

**Storage:** Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

Stability: 1 year

Predicted Protein Size: Observed MW (kDa):32

**Gene Name:** nucleophosmin (nucleolar phosphoprotein B23, numatrin)

Database Link: Entrez Gene 4869 Human

P06748

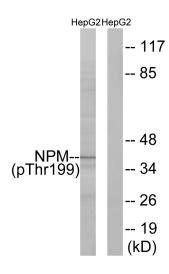


#### Background:

Swiss-Prot Acc.P06748.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).

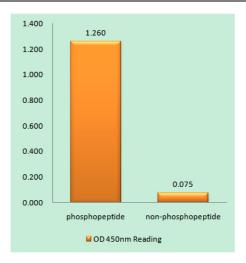
**Synonyms:** B23; MGC104254; NPM; Numatrin

# **Product images:**

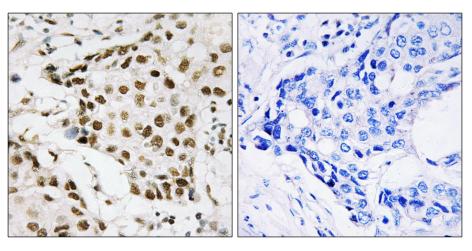


Western blot analysis of Phospho-B23 (Thr199) in HepG2 lysates using Phospho-B23 (Thr199) antibody. The lane on the right is blocked with the synthesized peptide.

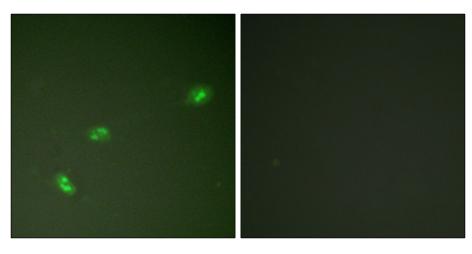




EnzymeLinked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phospho-peptide (Phospho-left) and NonPhospho-peptide (Phospho-right), using NPM (Phospho-Thr19antibody



Immunohistochemistry analysis of paraffinembedded Human breast carcinoma using Phospho-B23 (Thr199) antibody. High-pressure and temperature Sodium Citrate pH 6.0 was used for antigen retrieval. Sample with blocking peptide on the right.



Immunofluorescence analysis of Phospho-B23 (Thr199) in HeLa treated with EGF using Phospho-B23 (Thr199) antibody. The picture on the right is blocked with the Phospho-peptide.