



B23 (phospho Thr234) Polyclonal Antibody

Catalog No	YP-Ab-01313
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB;IHC;IF;ELISA
Gene Name	NPM1
Immunogen	The antiserum was produced against synthesized peptide derived from human NPM around the phosphorylation site of Thr234. AA range:201-250
Specificity	Phospho-B23 (T234) Polyclonal Antibody detects endogenous levels of B23 protein only when phosphorylated at T234.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Polyclonal, Rabbit,IgG
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB: 1/500 - 1/2000. IHC: 1/100 - 1/300. ELISA: 1/10000.. IF 1:50-200
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	Nucleophosmin;NPM1;NPM;Nucleolar phosphoprotein B23;Nucleolar protein NO38;Numatrin
Observed Band	38kD
Calculated Molecular Weight	38kD
Cell Pathway	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 suppressor

Background

This gene encodes a phosphoprotein which moves between the nucleus and the cytoplasm. The gene product is thought to be involved in several processes including regulation of the ARF/p53 pathway. A number of genes are fusion partners have been characterized, in particular the anaplastic lymphoma kinase gene on chromosome 2. Mutations in this gene are associated with acute myeloid leukemia. More than a dozen pseudogenes of this gene have been identified. Alternative splicing results in multiple transcript variants.[provided by RefSeq, Nov 2009],

matters needing attention

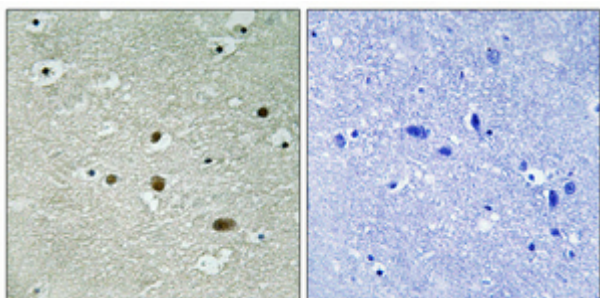
Avoid repeated freezing and thawing!

Usage suggestions

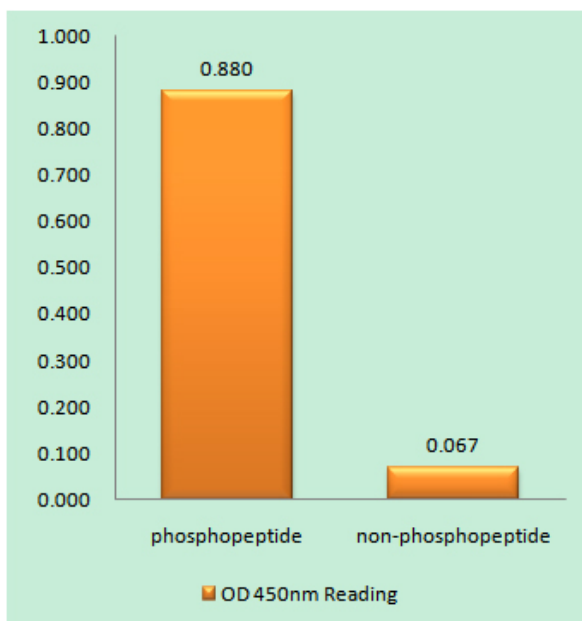
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



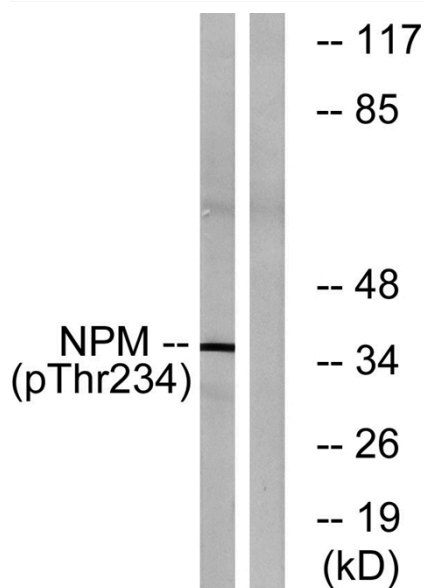
Products Images



Immunohistochemical analysis of paraffin-embedded Human brain. Antibody was diluted at 1:100(4° overnight). High-pressure and temperature Tris-EDTA, pH8.0 was used for antigen retrieval. Negative control (right) obtained from antibody was pre-absorbed by immunogen peptide.



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using NPM (Phospho-Thr234) Antibody



Western blot analysis of lysates from HeLa cells treated with nocodazole 1ug/ml 18h, using NPM (Phospho-Thr234) Antibody. The lane on the right is blocked with the phospho peptide.