



B23 Monoclonal Antibody

Catalog No	YP-Ab-00953
Isotype	IgG
Reactivity	Human;Monkey
Applications	WB;IHC;IF;ELISA
Gene Name	NPM1
Protein Name	Nucleophosmin
Immunogen	Purified recombinant fragment of human B23 expressed in E. Coli.
Specificity	B23 Monoclonal Antibody detects endogenous levels of B23 protein.
Formulation	Ascitic fluid containing 0.03% sodium azide,0.5% BSA, 50%glycerol.
Source	Monoclonal, Mouse
Purification	Affinity purification
Dilution	Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/200 - 1/1000. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/10000. Not yet tested in other applications.
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	NPM1; NPM; Nucleophosmin; NPM; Nucleolar phosphoprotein B23; Nucleolar protein NO38; Numatrin
Observed Band	
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

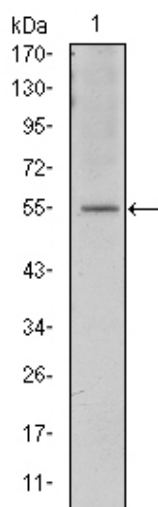
Avoid repeated freezing and thawing!

Usage suggestions

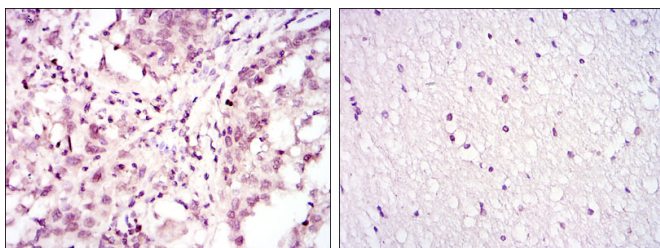
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



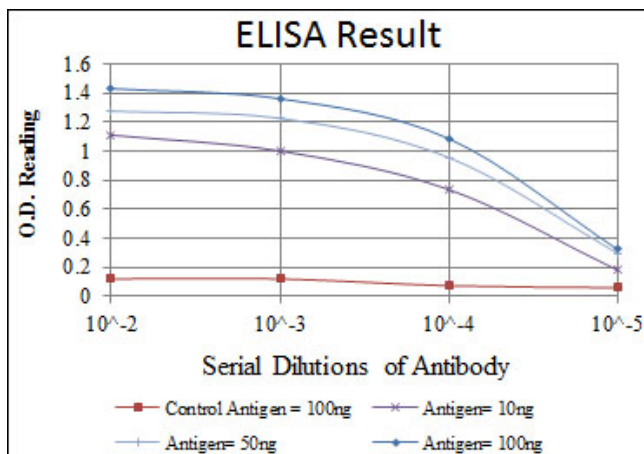
Products Images



Western Blot analysis using B23 Monoclonal Antibody against SMMC-7721 (1), HepG2 (2), HeLa (3) and HEK293 (4) cell lysate.



Immunohistochemistry analysis of paraffin-embedded human liver carcinoma tissues, showing nuclear localization with DAB staining using B23 Monoclonal Antibody.



Confocal immunofluorescence analysis of HeLa (left) and NTERA-2 (right) cells using B23 Monoclonal Antibody (green). Red: Actin filaments have been labeled with DY-554 phalloidin.