NEK2 Monoclonal Antibody

Catalog No	YP-mAb-06736
Isotype	IgG
Reactivity	Human;Rat;Mouse;
Applications	WB
Gene Name	NEK2 NEK2A NLK1
Protein Name	Serine/threonine-protein kinase Nek2 (EC 2.7.11.1) (HSPK 21) (Never in mitosis A-related kinase 2) (NimA-related protein kinase 2) (NimA-like protein kinase 1)
Immunogen	Synthesized peptide derived from part region of human protein
Specificity	NEK2 Monoclonal Antibody detects endogenous levels of protein.
Formulation	Liquid in PBS containing 50% glycerol, and 0.02% sodium azide.
Source	Monoclonal, Mouse,IgG
Purification	The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB 1:500-1:2000
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	
Observed Band	48kD
Cell Pathway	[Isoform 1]: Nucleus. Nucleus, nucleolus . Cytoplasm. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome . Cytoplasm, cytoskeleton, spindle pole. Chromosome, centromere, kinetochore. Chromosome, centromere . STK3/MST2 and SAV1 are required for its targeting to the centrosome. Colocalizes with SGO1 and MAD1L1 at the kinetochore. Not associated with kinetochore in the interphase but becomes associated with it upon the breakdown of the nuclear envelope. Has a nucleolar targeting/ retention activity via a coiled-coil domain at the C-terminal end.; [Isoform 2]: Cytoplasm. Predominantly cytoplasmic.; [Isoform 4]: Nucleus. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Predominantly nuclear.
Tissue Specificity	Isoform 1 and isoform 2 are expressed in peripheral blood T-cells and a wide variety of transformed cell types. Isoform 1 and isoform 4 are expressed in the testis. Up-regulated in various cancer cell lines, as well as primary breast tumors.
Function	catalytic activity:ATP + a protein = ADP + a phosphoprotein.,cofactor:Magnesium.,developmental stage:Accumulates throughout S phase and shows maximal levels in late G2. This expression pattern is highly reminiscent of that of A and B cyclins. Expression of both isoform 1 and isoform 2 is low in the G1 phase and increases in the S/G2 phases. Isoform 1 is absent from cells arrested in the G2/M prometaphase, whereas isoform 2 remains

	present.,function:Protein kinase that is involved in mitotic regulation. May have a role at the G2-M transition. May also play a role in meiosis. Isoform 1 but not isoform 2 appears to play a role in centrosome splitting. Isoform 1 phosphorylates and activates NEK11 in G1/S-arrested cells. Isoform 2, which is not present in the nucleolus, does not.,PTM:It is unsure whether Thr-170 or Ser-171 is phosphorylated.,similarity:Belongs to the protein kinase superfamil
Background	This gene encodes a serine/threonine-protein kinase that is involved in mitotic regulation. This protein is localized to the centrosome, and undetectable during G1 phase, but accumulates progressively throughout the S phase, reaching maximal levels in late G2 phase. Alternatively spliced transcript variants encoding different isoforms with distinct C-termini have been noted for this gene. [provided by RefSeq, Feb 2011],
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.

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