

NEK6 Recombinant monoclonal antibody

Catalog Number: 85728-1-RR

Basic Information

Catalog Number:

85728-1-RR

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG0266

GenBank Accession Number:

BC000101

GeneID (NCBI):

10783

UNIPROT ID:

Q9HC98

Full Name:

NIMA (never in mitosis gene a)-related kinase 6

Calculated MW:

35 kDa

Observed MW:

35-40 kDa

Purification Method:

Protein A purification

CloneNo.:

250009D2

Recommended Dilutions:

WB: 1:5000-1:50000

Applications

Tested Applications:

WB, ELISA

Species Specificity:

human, mouse, rat

Positive Controls:

WB : HEK-293 cells, HepG2 cells, HT-1080 cells, mouse brain tissue, rat brain tissue

Background Information

The *Aspergillus nidulans* 'never in mitosis A' (NIMA) is a serine/ threonine kinase that controls initiation of mitosis, whereas its inactivation is necessary for mitotic exit. NIMA-related kinases (NEKs) are a group of protein kinases that are homologous to NIMA. Evidence suggests that NEKs perform functions similar to those of NIMA. Human NIMA-related kinase 6 (NEK6, synonym: SID6-1512) is comprised of 338 amino acids and shows both nuclear and cytoplasmic localizations in HeLa cells. NEK6 is required for mitotic progression of human cells. NEK6 is phosphorylated and activated during M phase. Inhibition of Nek6 function by either overexpression of an inactive Nek6 mutant or elimination of endogenous Nek6 by siRNA arrests cells in M phase and triggers apoptosis. Recombinant human NEK6 protein produced in insect cells effectively phosphorylates histones H1 and H3, but not casein. Thus, these results suggest that, unlike other mammalian NIMA-related kinases, NEK6 is a mitotic histone kinase which regulates chromatin condensation in mammalian cells. NEK6 transcripts are ubiquitously expressed with the highest expression found in the heart and skeletal muscle, and the hNek6 gene is localized to human chromosome 9q33-34. NEK6 has four isoforms with MW 35-40 kDa.

Storage

Storage:

Store at -20°C. Stable for one year after shipment.

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

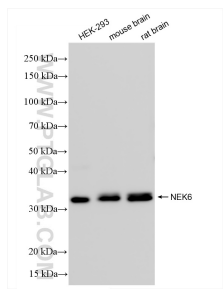
For technical support and original validation data for this product please contact:

T: 4006900926

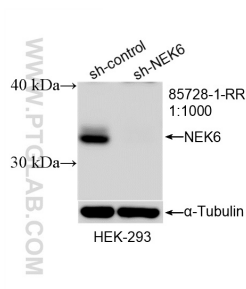
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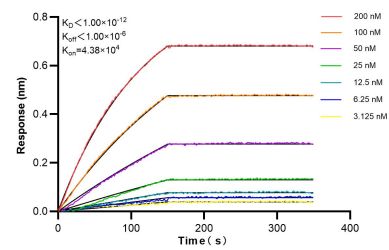
Selected Validation Data



Various lysates were subjected to SDS PAGE followed by western blot with 85728-1-RR (NEK6 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



WB result of NEK6 antibody (85728-1-RR; 1:1000; incubated at room temperature for 1.5 hours) with sh-Control and sh-NEK6 transfected HEK-293 cells.



Biolayer interferometry (BLI) kinetic assays of 85728-1-RR against Human NEK6 were performed. The affinity constant is below 1 pM.