

NEK6 Polyclonal antibody

Catalog Number: 10378-1-AP

Featured Product

4 Publications

Basic Information

Catalog Number:

10378-1-AP

Size:

300 µg/ml

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:

35-45 kDa

Purification Method:

Antigen affinity purification

Recommended Dilutions:

WB 1:500-1:1000

IF 1:50-1:500

Applications

Tested Applications:

IF/ICC, WB, ELISA

Cited Applications:

WB, IF

Species Specificity:

human, monkey, mouse, rat

Cited Species:

human

Positive Controls:

WB : HEK-293 cells, HT-1080 cells, HeLa cells

IF : HeLa cells,

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.

Notable Publications

Author	Pubmed ID	Journal	Application
Xin Jun Wang	35402517	Front Mol Biosci	WB
Zhongshi Hong	35096064	J Oncol	WB
Lei Chen	37835513	Cancers (Basel)	WB

Storage

Storage:

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

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

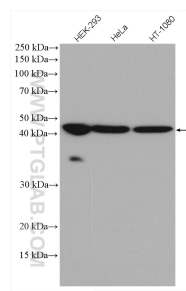
For technical support and original validation data for this product please contact:

T: 4006900926

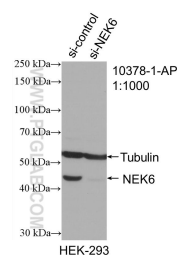
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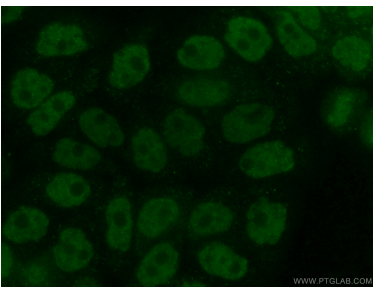
Selected Validation Data



Various lysates were subjected to SDS PAGE followed by western blot with 10378-1-AP (NEK6 antibody) at dilution of 1:600 incubated at room temperature for 1.5 hours.



WB result of NEK6 antibody (10378-1-AP; 1:1000; incubated at room temperature for 1.5 hours) with sh-Control and sh-NEK6 transfected HEK-293 cells.



Immunofluorescent analysis of (4% PFA) fixed HEK-293 cells using 10378-1-AP (NEK6 antibody) at dilution of 1:50 and Alexa Fluor 488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).