

For Research Use Only

# NEK6 Polyclonal antibody

Catalog Number: 28070-1-AP



## Basic Information

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|---|--|--|
| <b>Catalog Number:</b><br>28070-1-AP        | <b>GenBank Accession Number:</b><br>BC000101                             | <b>Purification Method:</b><br>Antigen affinity purification                               |
| <b>Concentration:</b><br>250 ug/ml          | <b>GeneID (NCBI):</b><br>10783   | <b>Recommended Dilutions:</b><br>WB: 1:500-1:2000<br>IHC: 1:50-1:500<br>IF/ICC: 1:50-1:500 |
| <b>Source:</b><br>Rabbit                    | <b>UNIPROT ID:</b><br>Q9HC98   |  |
| <b>Isotype:</b><br>IgG                      | <b>Full Name:</b><br>NIMA (never in mitosis gene a)-<br>related kinase 6 |  |
| <b>Immunogen Catalog Number:</b><br>AG27887 | <b>Calculated MW:</b><br>35 kDa  |  |
|   | <b>Observed MW:</b><br>35-40 kDa   |  |

## Applications

|  |   |
|--|---|
| <b>Tested Applications:</b><br>WB, IHC, IF/ICC, ELISA  | <b>Positive Controls:</b><br>WB: mouse liver tissue, rat liver tissue<br>IHC: rat liver tissue, mouse liver tissue<br>IF/ICC: HeLa cells, |
| <b>Species Specificity:</b><br>human, mouse, rat   |   |
| <b>Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0</b> |   |

## 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:

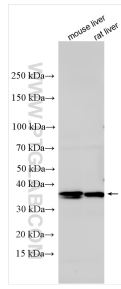
T: 4006900926

E: Proteintech-CN@ptglab.com

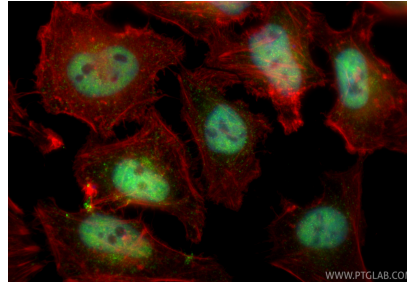
W: ptgcn.com

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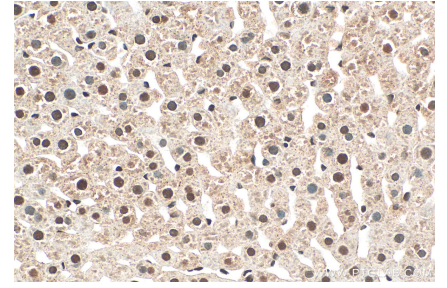
## Selected Validation Data



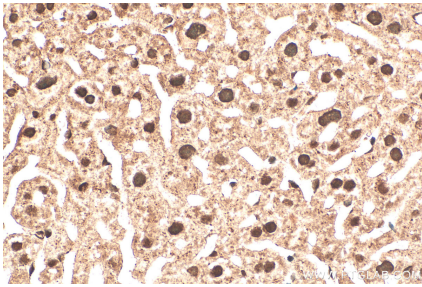
Various lysates were subjected to SDS PAGE followed by western blot with 28070-1-AP (NEK6 antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



Immunofluorescent analysis of (4% PFA) fixed HeLa cells using NEK6 antibody (28070-1-AP) at dilution of 1:200 and CoraLite@488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2), CL594-Phalloidin (red).



Immunohistochemical analysis of paraffin-embedded rat liver tissue slide using 28070-1-AP (NEK6 antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded mouse liver tissue slide using 28070-1-AP (NEK6 antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).