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NEK6 Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP8077a

Specification

NEK6 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession Q9HC98

NEK6 Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 10783

Other Names
Serine/threonine-protein kinase Nek6, Never in mitosis A-related kinase 6, NimA-related protein kinase 6, Protein kinase SID6-1512, NEK6

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP8077a was selected from the N-term region of human NEK6 . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

NEK6 Antibody (N-term) Blocking Peptide - Protein Information

Name NEK6 (HGNC:7749)

Function
Protein kinase which plays an important role in mitotic cell cycle progression (PubMed:11516946, PubMed:14563848). Required for chromosome segregation at metaphase-anaphase transition, robust mitotic spindle formation and cytokinesis (PubMed:19414596). Phosphorylates ATF4, CIR1, PTN, RAD26L, RBBP6, RPS7, RPS6KB1, TRIP4, STAT3 and histones H1 and H3 (PubMed:12054534, PubMed:20873783). Phosphorylates KIF11 to promote mitotic spindle formation (PubMed:19001501). Involved in

G2/M phase cell cycle arrest induced by DNA damage (PubMed:18728393). Inhibition of activity results in apoptosis. May contribute to tumorigenesis by suppressing p53/TP53-induced cancer cell senescence (PubMed:21099361). Phosphorylates EML4 at 'Ser-144', promoting its dissociation from microtubules during mitosis which is required for efficient chromosome congression (PubMed:31409757).

Cellular Location
Cytoplasm. Nucleus. Nucleus speckle. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Cytoplasm, cytoskeleton, spindle pole. Note=Colocalizes with APBB1 at the nuclear speckles. Colocalizes with PIN1 in the nucleus. Colocalizes with ATF4, CIR1, ARHGAP33, ANKRA2, CDC42, NEK9, RAD26L, RBBP6, RPS7, TRIP4, RELB and PHF1 in the centrosome. Localizes to spindle microtubules in metaphase and anaphase and to the midbody during cytokinesis

Tissue Location
Ubiquitous, with highest expression in heart and skeletal muscle.

NEK6 Antibody (N-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

NEK6 Antibody (N-term) Blocking Peptide - Images

NEK6 Antibody (N-term) Blocking Peptide - Background

NEK6 is a serine/threonine kinase that controls initiation of mitosis. NEK6 is activated during M phase. It is required for chromosome segregation at metaphase-anaphase transition and therefore for mitotic progression. Inhibition of activity results in apoptosis.

NEK6 Antibody (N-term) Blocking Peptide - References

Belham, C., et al., J. Biol. Chem. 278(37):34897-34909 (2003).Lizcano, J.M., et al., J. Biol. Chem. 277(31):27839-27849 (2002).Hashimoto, Y., et al., Biochem. Biophys. Res. Commun. 293(2):753-758 (2002).Li, M.Z., et al., Cytogenet. Cell Genet. 87 (3-4), 271-272 (1999).