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NEK9 Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP8079b

Specification

NEK9 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession Q8TD19

NEK9 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 91754

Other Names
Serine/threonine-protein kinase Nek9, Nercc1 kinase, Never in mitosis A-related kinase 9, NimA-related protein kinase 9, NimA-related kinase 8, Nek8, NEK9, KIAA1995, NEK8, NERCC

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP8079b was selected from the C-term region of human NEK9 . 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.

NEK9 Antibody (C-term) Blocking Peptide - Protein Information

Name NEK9 {ECO:0000303|PubMed:12840024, ECO:0000312|HGNC:HGNC:18591}

Function
Pleiotropic regulator of mitotic progression, participating in the control of spindle dynamics and chromosome separation (PubMed:12101123, PubMed:12840024, PubMed:14660563, PubMed:19941817). Phosphorylates different histones, myelin basic protein, beta-casein, and BICD2 (PubMed:11864968). Phosphorylates histone H3 on serine and threonine residues and beta-casein on serine residues (PubMed:11864968). Important for G1/S transition and S phase progression (PubMed:12840024,

PubMed:14660563, PubMed:19941817). Phosphorylates NEK6 and NEK7 and stimulates their activity by releasing the autoinhibitory functions of Tyr-108 and Tyr-97 respectively (PubMed:12840024, PubMed:14660563, PubMed:19941817, PubMed:26522158).

Cellular Location
Cytoplasm. Nucleus

Tissue Location
Most abundant in heart, liver, kidney and testis. Also expressed in smooth muscle cells and fibroblasts

NEK9 Antibody (C-term) Blocking Peptide - Protocols

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

- Blocking Peptides

NEK9 Antibody (C-term) Blocking Peptide - Images

NEK9 Antibody (C-term) Blocking Peptide - Background

NEK9, a member of the NIMA subfamily of Ser/Thr protein kinases, is a pleiotropic regulator of mitotic progression, participating in the control of spindle dynamics and chromosome separation. It phosphorylates different histones (serine and threonine residues on H3), myelin basic protein, beta-casein (serine residues), and BICD2. NEK9 is activated during mitosis by intramolecular autophosphorylation. Activity and autophosphorylation is activated by manganese >> magnesium ions, and is sensitive to increasing concentration of detergents. This protein is not cell-cycle regulated but activity is higher in G0-arrested cells. NEK is part of a homodimer that binds to Ran GTPase, and exhibits a greater affinity for Ran-GDP over Ran-GTP. Interaction is also noted with NEK6 and NEK7 family members. This cytoplasmic protein is most abundant in heart, liver, kidney and testis, and is also expressed in smooth muscle cells and fibroblasts. Expression varies mildly across the cell cycle, with highest expression observed in G1 and stationary-phase cells.

NEK9 Antibody (C-term) Blocking Peptide - References

Tan,B.C. et al. J. Biol. Chem. 279 (10), 9321-9330 (2004) Belham,C. et al. J. Biol. Chem. 278 (37), 34897-34909 (2003) Roig, J. et al. Genes Dev. 16(13):1640-1658 (2002). Holland, P.M. et al. J. Biol. Chem. 277(18):16229-16240 (2002). Strausberg, R.L. et al. Proc. Natl. Acad. Sci. U.S.A. 99(26):16899-16903 (2002).