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NEK3 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8075c

Product Information

Application	WB, E
Primary Accession	P51956
Other Accession	NP_002489
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	57705
Antigen Region	331-361

Additional Information

Gene ID	4752
Other Names	Serine/threonine-protein kinase Nek3, HSPK 36, Never in mitosis A-related kinase 3, NimA-related protein kinase 3, NEK3
Target/Specificity	This NEK3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 331-361 amino acids from the Central region of human NEK3.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	NEK3 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	NEK3
Function	Protein kinase which influences neuronal morphogenesis and polarity through effects on microtubules. Regulates microtubule acetylation in neurons. Contributes to prolactin-mediated phosphorylation of PXN and VAV2. Implicated in prolactin-mediated cytoskeletal reorganization and

	motility of breast cancer cells through mechanisms involving RAC1 activation and phosphorylation of PXN and VAV2.
Cellular Location	Cytoplasm. Cell projection, axon
Tissue Location	Up-regulated in malignant versus normal breast tissue. Isoform 2 shows a high level of expression in testis, ovary and brain.

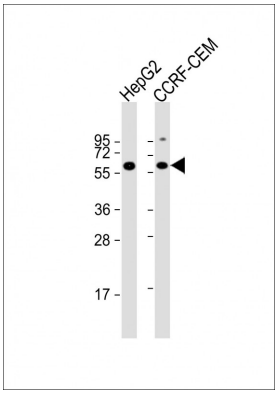
Background

In Aspergillus nidulans, lack of the serine/threonine kinase NimA (never in mitosis A) results in cell cycle arrest in G2, while overexpression causes the premature onset of mitotic events. NEK3 is similar in sequence to the Aspergillus nidulans protein and may therefore play a role in mitotic regulation. However, the encoded protein differs from other NimA family members in that it is not cell cycle regulated and is found primarily in the cytoplasm.

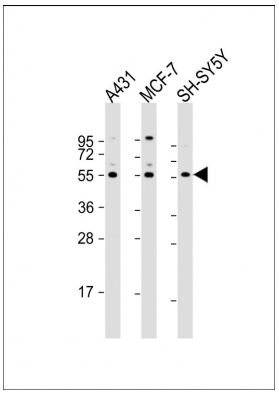
References

Schultz, S.J., et al., Cell Growth Differ. 5(6):625-635 (1994).
Schultz, S.J., et al., Cell Growth Differ. 4(10):821-830 (1993).
Kimura, M., et al., Cytogenet. Cell Genet. 95 (3-4), 177-182 (2001).

Images

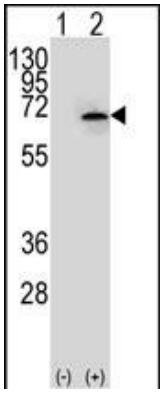


All lanes : Anti-NEK3 Antibody (K346) at 1:2000 dilution Lane 1: HepG2 whole cell lysate Lane 2: CCRF-CEM whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 58 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



All lanes : Anti-NEK3 Antibody (K346) at 1:2000 dilution Lane 1: A431 whole cell lysate Lane 2: MCF-7 whole cell lysate Lane 3: SH-SY5Y whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 58 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Western blot analysis of NEK3 (arrow) using rabbit polyclonal NEK3 Antibody (K346) (Cat. #AP8075c). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the NEK3 gene.



Citations

- Overexpression of NEK3 is associated with poor prognosis in patients with gastric cancer.
- Altered expression of prolactin receptor-associated signaling proteins in human breast carcinoma.