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NEK4 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8076b

Product Information

Application	IHC-P, WB, E
Primary Accession	P51957
Other Accession	NP_003148
Reactivity	Human
Predicted	Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB2963
Calculated MW	94597
Antigen Region	793-824

Additional Information

Gene ID	6787
Other Names	Serine/threonine-protein kinase Nek4, Never in mitosis A-related kinase 4, NimA-related protein kinase 4, Serine/threonine-protein kinase 2, Serine/threonine-protein kinase NRK2, NEK4, STK2
Target/Specificity	This NEK4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 793-824 amino acids from the C-terminal region of human NEK4.
Dilution	IHC-P~~1:100~500 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	NEK4 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	NEK4
Synonyms	STK2

Function	Protein kinase that seems to act exclusively upon threonine residues (By similarity). Required for normal entry into proliferative arrest after a limited number of cell divisions, also called replicative senescence. Required for normal cell cycle arrest in response to double-stranded DNA damage.
Cellular Location	Cell projection, cilium. Cytoplasm
Tissue Location	Highest expression in adult heart, followed by pancreas, skeletal muscle, brain, testis, retina, liver, kidney, lung and placenta. Present in most primary carcinomas

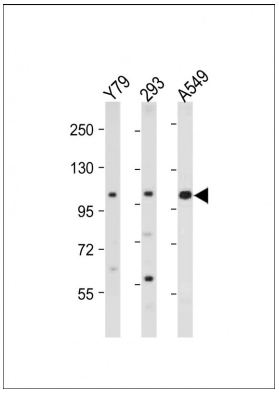
Background

Protein kinases are enzymes that transfer a phosphate group from a phosphate donor, generally the g phosphate of ATP, onto an acceptor amino acid in a substrate protein. By this basic mechanism, protein kinases mediate most of the signal transduction in eukaryotic cells, regulating cellular metabolism, transcription, cell cycle progression, cytoskeletal rearrangement and cell movement, apoptosis, and differentiation. With more than 500 gene products, the protein kinase family is one of the largest families of proteins in eukaryotes. The family has been classified in 8 major groups based on sequence comparison of their tyrosine (PTK) or serine/threonine (STK) kinase catalytic domains. The STE group (homologs of yeast Sterile 7, 11, 20 kinases) consists of 50 kinases related to the mitogen-activated protein kinase (MAPK) cascade families (Ste7/MAP2K, Ste11/MAP3K, and Ste20/MAP4K). MAP kinase cascades, consisting of a MAPK and one or more upstream regulatory kinases (MAPKKs) have been best characterized in the yeast pheromone response pathway. Pheromones bind to Ste cell surface receptors and activate yeast MAPK pathway.

References

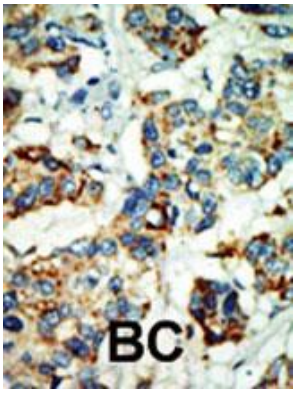
Levedakou, E.N., et al., Oncogene 9(7):1977-1988 (1994).
Lu, K.P., et al., Prog Cell Cycle Res 1, 187-205 (1995).

Images



All lanes : Anti-hNEK4-E808 at 1:2000 dilution Lane 1: Y79 whole cell lysate Lane 2: 293 whole cell lysate Lane 3: A549 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 : 95 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.