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NEK6 Rabbit mAb

Catalog # AP76614

Product Information

Application	WB
Primary Accession	Q9HC98
Reactivity	Rat, Human
Host	Rabbit
Clonality	Monoclonal Antibody
Isotype	IgG
Conjugate	Unconjugated
Purification	Affinity Purified
Calculated MW	35714

Additional Information

Gene ID	10783
Other Names	NEK6
Dilution	WB~~1:1000
Format	Liquid in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

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, CIRSR, 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, CIRSR, 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.

Background

Activated during M phase. Required for chromosome segregation at metaphase-anaphase transition and therefore for mitotic progression. Inhibition of activity results in apoptosis. Phosphorylates KIF11 to promote mitotic spindle formation.

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