

Recombinant Human NEK6, Active

Cat. No. NEK6-662H **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Species	Human
Source	E.coli
Description	NEK6 is a serine/threonine kinase that is a member of the Nek family of protein kinases that share an amino-terminal catalytic domain related to NIMA family. Nek6 is a nuclear and cytoplasmic kinase that is required for mitotic progression of human cells. Nek6 is phosphorylated and activated during M phase of the cell cycle. Inhibition of Nek6 function by either overexpression of an inactive Nek6 mutant or elimination of endogenous Nek6 by siRNA arrests cells in M phase and triggers apoptosis.
Application	Kinase activity is measured as the molar amount of phosphate incorporated into myelin basic protein, per minute per mg protein at 30°C using a final concentration of 50 µM [32P] ATP.
Biochem/physiol Actions	Nek6 is a nuclear and cytoplasmic kinase that is required for mitotic progression of human cells. It is phosphorylated and activated during M phase of the cell cycle. Inhibition of Nek6 arrests cells in M phase and triggers apoptosis, suggesting that Nek6 is required for metaphase-anaphase transition.
Physical Form	Solution in 50 mM Tris-HCl, pH 7.5, 150 mM NaCl, 0.25 mM DTT, 0.1 mM EGTA, and 30% glycerol.

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Assay	≥80% (SDS-PAGE).
Form	buffered aqueous glycerol solution.
Mol Wt	protein apparent mol wt ~58 kDa.
Storage Temp	-70°C.

GENE INFORMATION

Gene Name	NEK6 NIMA (never in mitosis gene a)-related kinase 6 [Homo sapiens]
Synonyms	NEK6; NIMA (never in mitosis gene a)-related kinase 6; SID6-1512; NIMA-related kinase 6; OTTHUMP00000022097; putative serine-threonine protein kinase; EC 2.7.11.1
Gene ID	10783
mRNA Refseq	NM_001145001
Protein Refseq	NP_001138473
MIM	604043
UniProt ID	P51955
Chromosome Location	9q33.3-q34.11
Function	ATP binding; magnesium ion binding; nucleotide binding; protein phosphatase binding; protein serine/threonine kinase activity; transferase activity; protein

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serine/threonine kinase activity; signal transducer activity

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