Recombinant Human NEK7 Protein (His & GST tag)

Cat.NO.: TP06506

3th Edition

Synonyms:NEK7

Description:NIMA (never in mitosis gene a)-related kinase 7, NEK7 belongs to the NIMA subfamily, NEK Ser/Thr protein kinase family, protein kinase superfamily. NEKs (NIMA-related kinases) are mammalian serine/threonine (Ser/Thr) protein kinases structurally related to Aspergillus NIMA (Never in Mitosis, gene A), which plays essential roles in mitotic signaling. NEKs share an amino-terminal catalytic domain related to NIMA, an Aspergillus kinase involved in the control of several aspects of mitosis, and divergent carboxyl-terminal tails of varying length. NEKs are commonly referred to as mitotic kinases, although a definitive in vivo verification of this definition is largely missing. Reduction in the activity of NEK7 or its close paralog, NEK6, has previously been shown to arrest cells in mitosis, mainly at metaphase. NEK7 is a regulator of cell division, and reveal it as an essential component for mammalian growth and survival. The intimate connection between tetraploidy, aneuploidy and cancer development suggests that NEK7 deregulation can induce oncogenesis. The endogenous NEK7 protein is enriched at the centrosome in a microtubule-independent manner. Overexpression of wt or kinase-defective NEK7 resulted in cells of rounder appearance, and higher proportions of multinuclear and apoptotic cells.

Form:PBS

Molecular Weight:62.4 kDa

Sequences: Met 1-Ser 302

Purity:> 95% by HPLC

Concentration:

Endotoxin Level:<1.0 EU per 1 ug of protein (determined by LAL method)

Storage: Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.