

# Recombinant Mouse NEK3 Protein (His & GST Tag)

Catalog Number:PKSM040293



**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

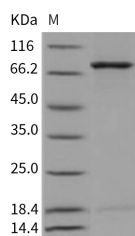
## Description

<b>Synonyms</b>	NEK3
<b>Species</b>	Mouse
<b>Expression Host</b>	Baculovirus-Insect Cells
<b>Sequence</b>	Met 1-Ala 509
<b>Accession</b>	ABK42288.1
<b>Calculated Molecular Weight</b>	84.8 kDa
<b>Observed molecular weight</b>	72 kDa
<b>Tag</b>	N-His-GST
<b>Bioactivity</b>	The specific activity was determined to be 8 nmol/min/mg using MBP as substrate.

## Properties

<b>Purity</b>	> 90 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.
<b>Shipping</b>	This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at < - 20°C.
<b>Formulation</b>	Supplied as sterile solution of 20mM Tris, 500mM NaCl, pH 8.0, 10% glycerol
<b>Reconstitution</b>	Not Applicable

## Data



> 90 % as determined by reducing SDS-PAGE.

## Background

NEK3 (NIMA (never in mitosis gene a)-related expressed kinase 3), contains 1 protein kinase domain and is a member of the NimA (never in mitosis A) family of serine/threonine protein kinases. Members of the NEK family of protein kinases share high amino acid homology with NIMA (never in mitosis gene a). NEK3 differs from other NimA family members in that it is not cell cycle regulated and is found primarily in the cytoplasm. It is activated by prolactin stimulation, leading to phosphorylation of VAV2 guanine nucleotide exchange factor, paxillin, and activation of the RAC1 GTPase. NEK3 mRNA can be detected in all the proliferating cell lines with the amount not changing during the cell cycle. Prolactin stimulates interaction between NEK3 and paxillin leading to increased paxillin phosphorylation. Analysis of breast tissue microarrays show a significant up-regulation of NEK3 expression in malignant versus normal specimens. Multiple transcript variants encoding different isoforms have been found for NEK3 gene. NEK3 may play a role in mitotic regulation.

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