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NEK2, Active recombinant protein

NEK, Serine/threonine-protein kinase Nek6
Catalog # PBV11295r

Specification

NEK2, Active recombinant protein - Product info

Primary Accession	P51955
Concentration	0.1
Calculated MW	76.0 kDa KDa

NEK2, Active recombinant protein - Additional Info

Gene ID	4751
Gene Symbol	NEK2

Other Names
NEK, Serine/threonine-protein kinase Nek6, Serine/threonine-protein kinase Nek6, Never in mitosis A-related kinase 6, NimA-related protein kinase 6, Protein kinase SID6-1512

Source	Baculovirus (Sf9 insect cells)
Assay&Purity	SDS-PAGE; ≥90%
Assay2&Purity2	HPLC;
Recombinant	Yes

Format
Liquid

Storage
-80°C; Recombinant proteins in storage buffer (50 mM Tris-HCl, pH 7.5, 150 mM NaCl, 0.25 mM DTT, 0.1 mM EGTA, 0.1 mM EDTA, 0.1 mM PMSF, 30% glycerol).

NEK2, Active recombinant protein - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

NEK2, Active recombinant protein - Images

NEK2, Active recombinant protein - Background

Nek 2 is closely related in its catalytic domain to the serine/threonine protein kinase NIMA of Aspergillus nidulans that is required for entry into mitosis and may function in parallel to the universal mitotic inducer p34cdc2. Like NIMA, the Nek2 protein is almost undetectable during G1

but accumulated progressively throughout S, reaching maximal levels in late G2 (1). These observations demonstrate that Nek2 resembles Aspergillus NIMA, not only in its catalytic domain, but also in its cell cycle-dependent expression. Recombinant Nek2 is active as a serine/threonine-specific protein kinase and may undergo autophosphorylation. Both human Nek2 and fungal NIMA phosphorylate a similar, albeit not identical, set of proteins and synthetic peptides, and β-casein is a suitable substrate for assaying Nek2 in vitro (2). Nek2 is shown to be expressed most abundantly in the testis of the adult tissues examined (3). Its expression in the testis is restricted to the germ cells, with highest levels detected in spermatocytes at pachytene and diplotene stages. Immunohistochemical analysis revealed that Nek2 localized to nuclei, exhibiting a non-uniform distribution within the nucleus.

NEK2, Active recombinant protein - References

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Hames R.S.,et al.Biochem. J. 361:77-85(2002).
Lu K.P.,et al.Submitted (JUL-1994) to the EMBL/GenBank/DDBJ databases.
Kalnine N.,et al.Submitted (OCT-2004) to the EMBL/GenBank/DDBJ databases.
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