

NEK2 active protein

Recombinant NEK2 protein

CATALOG # AAA60326	HOST Baculovirus
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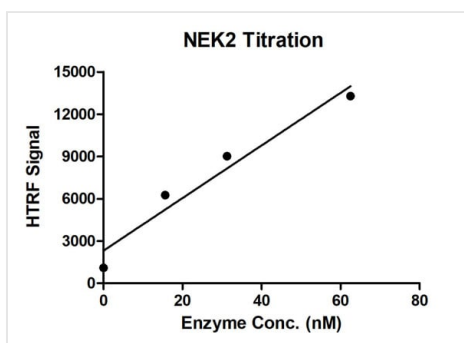
PRODUCT SYNONYMS

NEK2; Recombinant NEK2 protein; NIMA Related Kinase 2; NEK2 active protein

PRODUCT SPECIFICATIONS

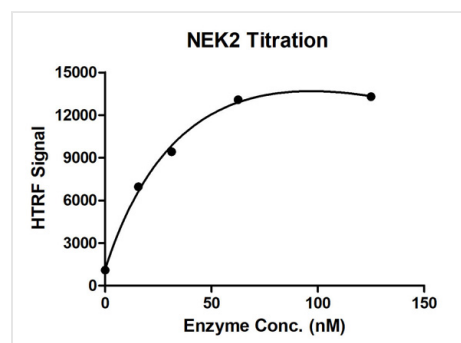
Host	Baculovirus
Purity/Purification	>=50%
Form/Format	Recombinant NEK2 protein is supplied in 25 mM HEPES-NaOH pH 7.5, 300 mM NaCl, 10% glycerol, 0.04% Triton X-100, 0.5 mM TCEP.
Protein Species	Human
Tag	DYKDDDDK-Tag
Protein Details	Recombinant NEK2 protein was expressed in baculovirus expression system as the full-length protein (accession number NP_002488.1) with a N-terminal DYKDDDDK tag. The molecular weight of the protein is 53 kDa.
Dry Ice Note	The product may be shipped with dry ice, and an additional fee may be added to your shipping cost.
Preparation and Storage	Recombinant proteins in solution are temperature sensitive and must be stored at -80 degree C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage.

IMAGES



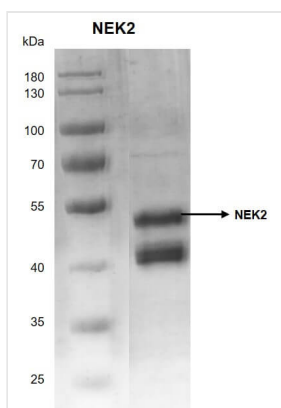
Bioactivity

HTRF assay for NEK2 activity 1 μ M STK S3 substrate was incubated with different concentrations of NEK2 protein in a 10 μ l reaction system containing 1 $\times$ Enzymatic Buffer, 5 mM MgCl₂, 1 mM DTT, and 100 μ M ATP for 1 hour. Then 10 μ l detection reagents containing anti-STK antibody (1:2) and SA-XL665 (1:100) diluted with 1 $\times$ Detection Buffer were added and incubated with the reactions for 30 min. All the operations and reactions were performed at room temperature. HTRF assay was used for detection.



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SDS-PAGE

Recombinant NEK2 protein 10% SDS-PAGE Coomassie staining MW: 53 kDa Purity: >= 50%

ADDITIONAL INFORMATION

Related Product Information for NEK2 active protein

NEK2 (NIMA Related Kinase 2) is a protein kinase which is involved in the control of centrosome separation and bipolar spindle formation in mitotic cells and chromatin condensation in meiotic cells. NEK2 regulates centrosome separation (essential for the formation of bipolar spindles and high-fidelity chromosome separation) by phosphorylating centrosomal proteins such as CROCC, CEP250 and NINL, resulting in their displacement from the centrosomes and regulates kinetochore microtubule attachment stability in mitosis via phosphorylation of NDC80. NEK2 is involved in regulation of mitotic checkpoint protein complex via phosphorylation of CDC20 and MAD2L1 and plays an active role in chromatin condensation during the first meiotic division through phosphorylation of HMGA2. It is also essential for localization of MAD2L1 to kinetochore and MAPK1 and NPM1 to the centrosome. NEK2-mediated phosphorylation of CEP68 promotes CEP68 dissociation from the centrosome and its degradation at the onset of mitosis.

Product Categories/Family for NEK2 active protein

Kinase; Recombinant Proteins

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com

Online datasheet: <https://stage.aaabiotech.com/baculovirus-active-protein/nek2/60326>