

## N-Terminal Fragment of Kinesin Heavy Chain

Human, Recombinant (rHunKHC)

Expressed in *E. coli*

Cat. No. CRP0848

Lot. No. (See product label)

### PRODUCT INFORMATION

**Description:** The kinesin family of motor proteins comprises at least two forms of conventional kinesin, and they are encoded by different genes and designated as ubiquitous kinesin, which is expressed in all cells and tissues, and neuronal kinesin, which is expressed exclusively in neuronal cells. While the kinesin heavy chain contains motor activity, evidence suggests that the kinesin light chain is involved in either modulation of kinesin heavy chain activity or in cargo binding. The motor protein kinesin is a heterotetramer composed of two heavy chains of approximately 120 kDa and two light chains of approximately 65 kDa. Kinesin motor activity is dependent on the presence of ATP and microtubules. rh-nKHC is a N-terminal fragment of uKHC with a histidine-tagged expressed in *E. coli*.

**M. W. :** 30,192 Da

**Recombinant:** Expressed in *E. coli*

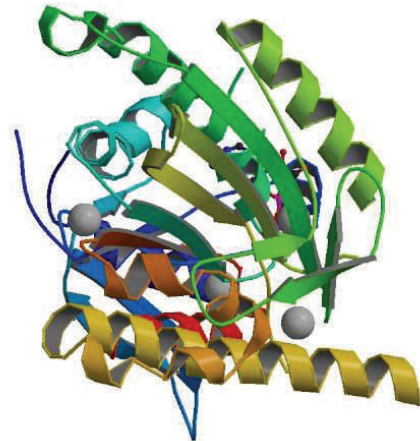
**Purity:** >95% as determined by SDS-PAGE.

**Storage buffer:** Inclusion Body.

### REFERENCES

1. Manning AL, Ganem NJ, Bakhoun SF, et al. The kinesin-13 proteins Kif2a, Kif2b, and Kif2c/MCAK have distinct roles during mitosis in human cells. *Mol. Biol. Cell* 2007; 18 (8): 2970–2979.
2. Schepis A, Stauber T, Krijnse Locker J. Kinesin-1 plays multiple roles during the vaccinia virus life cycle. *Cell. Microbiol.* 2008; 9 (8): 1960–1973.
3. Li C, Zheng Y, Qin W, et al. A family-based association study of kinesin heavy chain member 2 gene (KIF2) and schizophrenia. *Neurosci. Lett.* 2006; 407 (2): 151–155.
4. Nousiainen M, Silljé HH, Sauer G, et al. Phosphoproteome analysis of the human mitotic spindle. *Proc. Natl. Acad. Sci. U.S.A.* 2006; 103 (14): 5391–5396.

### FOR RESEARCH USE ONLY



[PDB](#) rendering based on 2gry.

### GENE INFORMATION

**Gene Name:** [KIF2A](#)

**Synonyms:** HK2; KIF2; Kinesin-2; Kinesin, heavy chain, 2; Kinesin-like protein KIF2A; kinesin heavy chain member 2; kinesin heavy chain member 2A

**mRNA Refseq:** [NM\\_001098511.1](#)

**Protein Refseq:** [NP\\_001091981.1](#)

**MIM:** [602591](#)

**GeneID:** [3796](#)

**Uniprot ID:** [O00139](#)

**Chromosome Location:** 5q12-q13

**Function:** ATP binding, microtubule motor activity, nucleotide binding

**Process:** cell differentiation, microtubule-based movement, multicellular organismal development, nervous system development

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