

Recombinant Mouse Kpna1 Protein, MYC/DDK-tagged

Cat. No. Kpna1-1278M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Purified recombinant protein of full-length mouse karyopherin (importin) alpha 1 (Kpna1), with C-terminal MYC/DDK tag, was expressed in HEK293T cells.
Species	Mouse
Source	HEK293
Description	Functions in nuclear protein import as an adapter protein for nuclear receptor KPNB1. Binds specifically and directly to substrates containing either a simple or bipartite NLS motif. Docking of the importin/substrate complex to the nuclear pore complex (NPC) is mediated by KPNB1 through binding to nucleoporin FxFG repeats and the complex is subsequently translocated through the pore by an energy requiring, Ran-dependent mechanism. At the nucleoplasmic side of the NPC, Ran binds to importin-beta and the three components separate and importin-alpha and -beta are re-exported from the nucleus to the cytoplasm where GTP hydrolysis releases Ran from importin. The directionality of nuclear import is thought to be conferred by an asymmetric distribution of the GTP- and GDP-bound forms of Ran between the cytoplasm and nucleus.
Molecular Mass	60.2 kDa
Purity	>80% as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.

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Storage	Store at -80 centigrade after receiving vials.
Concentration	>50 µg/mL as determined by microplate BCA method
Storage Buffer	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.
GENE INFORMATION	
Gene Name	Kpna1 karyopherin (importin) alpha 1 [Mus musculus (house mouse)]
Official Symbol	Kpna1
Synonyms	Kpna1; karyopherin (importin) alpha 1; NPI1; Rch2; IPOA5; mSRP1; AW494490; importin subunit alpha-5; NPI-1; RAG cohort protein 2; SRP1-beta; importin alpha 5; importin alpha-S1; importin subunit alpha-1; karyopherin subunit alpha-1; m-importin-alpha-S1; nucleoprotein interactor 1
Gene ID	16646
mRNA Refseq	NM_008465
Protein Refseq	NP_032491
UniProt ID	Q60960

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