

Recombinant Human KPNA1 Protein (8-538 aa), His-tagged

Cat. No. KPNA1-608H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human KPNA1 Protein (8-538 aa) is produced by E. coli expression system. This protein is fused with a 6xHis tag at the N-terminal. Protein Description: Partial.
Species	Human
Source	E.coli
ProteinLength	8-538 aa
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.
Form	Tris-based buffer, 50% glycerol
Molecular Mass	63.5 kDa

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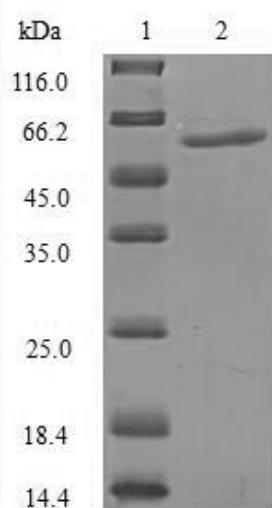
AA Sequence	NFRLKSYKNKSLNPDEMRRRREEEGLQLRKQKREEQLFKRRNVATAEEETEEVLM SDGGFHEAQISNMEMAPGGVITSDMIEMIFSKSPEQQLSATQKFRKLLSKEPNPPID EVISTPGVVARFVEFLKRKENCTLQFESAWVLTNIASGNSLQTRIVIQAGAVPIFIELLS SEFEDVQEQAVWALGNIAGDSTMCRDYVLDCNILPPLLQLFSKQNRLLTMTRNAVWA LSNLCRGKSPPEFAKVSPCLNVLSWLLFVSDTDVLADACWALSYSYSDGPNDKIQAV IDAGVCRRLVELLMHNDYKVVSPALRAVGNIVTGDDIQTQVILNCSALQSLLHLLSSP KESIKKEACWTISNITAGNRAQIQTVIDANIFPALISILQTAEFRTTRKEAAWAITNATSG GSAEQIKYLVELGCIKPLCDLLTVMSKIVQVALNGLNLRGEQEAQRNGTGINPY CALIEEAYGLDKIEFLQSHENQEIQKAFDLIEHYFGTEDEDSSIAPQVDLNQQQYIFQ QCEAPMEGFQL
Purity	> 90% as determined by SDS-PAGE.
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4 centigrade for up to one week.
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20 centigrade/-80 centigrade. The shelf life of lyophilized form is 12 months at -20 centigrade/-80 centigrade.
Concentration	A hardcopy of COA with concentration instruction is sent along with the products.
GENE INFORMATION	
Gene Name	KPNA1 karyopherin alpha 1 (importin alpha 5) [Homo sapiens]
Official Symbol	KPNA1
Synonyms	KPNA1; IPOA5; NPI 1; RCH2; SRP1; SRP1-beta; importin alpha 5; NPI-1;

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Gene ID	3836
mRNA Refseq	NM_002264
Protein Refseq	NP_002255
MIM	600686
UniProt ID	P52294



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.