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Product datasheet

Recombinant Human KPNA2 protein ab123205

1 Image

Description

Product name	Recombinant Human KPNA2 protein
Purity	> 90 % SDS-PAGE. ab123205 is purified by using conventional chromatography.
Expression system	Escherichia coli
Accession	**P52292**
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Human
Sequence	MGSSHHHHHH SSGLVPRGSH MGSHMSTNEN ANTPAARLHR FKNKGKDSTE MRRRRIEVNV ELRKAKKDDQ MLKRRNVSSF PDDATSPLQE NRNNQGTVNW SVDDIVKGIN SSNVENQLQA TQAARKLLSR EKQPPIDNII RAGLIPKFVS FLGRTDCSPI QFESAWALTN IASGTSEQTK VVVDGGAIPA FISLLASPHA HISEQAVWAL GNIAGDGSVF RDLVIKYGAV DPLLALLAVP DMSSLACGYL RNLTWTLSNL CRNKNPAPPI DAVEQILPTL VRLLHHDDPE VLADTCWAIS YLTDGPNERI GMVVKTGVVP QLVKLLGASE LPIVTPALRA IGNIVTGTDE QTQVVIDAGA LAVFPSLLTN PKTNIQKEAT WTMSNITAGR QDQIQQVVNH GLVPFLVSVL SKADFKTQKE AVWAVTNYTS GGTVEQIVYL VHCGIIEPLM NLLTAKDTKI ILVILDAISN IFQAAENLGE TEKLSIMIEE CGGLDKIEAL QNHENESVYK ASLSLIEKYF SVEEEEDQNV VPETTSEGYT FQVQDGAPGT FNF
Predicted molecular weight	61 kDa including tags
Amino acids	1 to 529
Tags	His tag N-Terminus

Specifications

Our **Abpromise guarantee** covers the use of **ab123205** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	SDS-PAGE
Form	Liquid

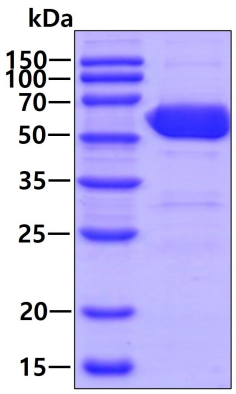
Preparation and Storage

Stability and Storage	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle. pH: 8.00 Constituents: 0.02% DTT, 0.32% Tris HCl, 20% Glycerol (glycerin, glycerine)

General Info

Function	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.
Tissue specificity	Expressed ubiquitously.
Sequence similarities	Belongs to the importin alpha family. Contains 10 ARM repeats. Contains 1 IBB domain.
Domain	Consists of an N-terminal hydrophilic region, a hydrophobic central region composed of 10 repeats, and a short hydrophilic C-terminus. The N-terminal hydrophilic region contains the importin beta binding domain (IBB domain), which is sufficient for binding importin beta and essential for nuclear protein import. The IBB domain is thought to act as an intrasteric autoregulatory sequence by interacting with the internal autoinhibitory NLS. Binding of KPNB1 probably overlaps the internal NLS and contributes to a high affinity for cytoplasmic NLS-containing cargo substrates. After dissociation of the importin/substrate complex in the nucleus the internal autohibitory NLS contributes to a low affinity for nuclear NLS-containing proteins. The major and minor NLS binding sites are mainly involved in recognition of simple or bipartite NLS motifs. Structurally located within in a helical surface groove they contain several conserved Trp and Asn residues of the corresponding third helices (H3) of ARM repeats which mainly contribute to binding.
Cellular localization	Cytoplasm. Nucleus.

Images



SDS-PAGE - Recombinant Human KPNA2 protein (ab123205)

3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

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