

Catalog No.: RP03270LQ **Recombinant**

Species	Gene ID	Swiss Prot
Human	3837	O14974

N-His

Karyopherin subunit beta-1; KPNB1;
Importin subunit beta-1; Importin-90;
Nuclear factor p97; Pore targeting
complex 97 kDa subunit; PTAC97; NTF97

Source	Purification
E.coli	≥ 85 % as determined by SDS-PAGE

< 1 EU/μg of the protein by LAL method.

Supplied as a 0.22 μ m filtered solution of 20 mM Tris-HCl, 1 mM DTT, 30% Glycerol, 100 mM NaCl, pH 8.0. Contact us for customized product form or formulation.

Please contact us for reconstitution instructions.

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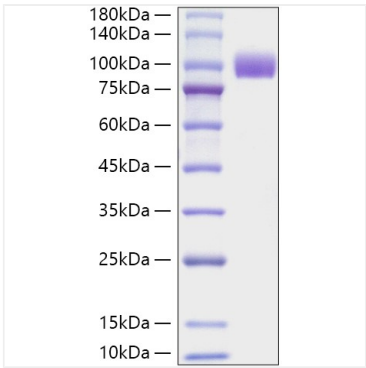
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KPNB1 belongs to the importin beta family, and contains 1 importin N-terminal domain and 19 HEAT repeats. It functions in nuclear protein import, either in association with an adapter protein, like an importin-alpha subunit, which binds to nuclear localization signals (NLS) in cargo substrates, or by acting as autonomous nuclear transport receptor. 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.

Recombinant Human KPNB1 Protein is produced by E.coli expression system. The target protein is expressed with sequence (Met1-Ala876) of human KPNB1 (Accession #O14974) fused with His tag at the N-terminus.

Store at -70°C. This product is stable at $\leq -70^{\circ}\text{C}$ for up to 1 year from the date of receipt. For optimal storage, aliquot into smaller quantities after centrifugation and store at recommended temperature. Avoid repeated freeze-thaw cycles.

Validation Data



Recombinant Human Karyopherin subunit beta-1/KPNB1 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.