

# Recombinant Human KPNB1 Protein (His Tag)

Catalog Number:PKSH032583



**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

## Description

<b>Synonyms</b>	Importin subunit beta-1;Importin-90;Karyopherin subunit beta-1;Nuclear factor p97;Pore targeting complex 97 kDa subunit;PTAC97;KPNB1;NTF97
<b>Species</b>	Human
<b>Expression Host</b>	E.coli
<b>Sequence</b>	Met 1-Ala876
<b>Accession</b>	Q14974
<b>Calculated Molecular Weight</b>	98.6 kDa
<b>Observed molecular weight</b>	90 kDa
<b>Tag</b>	N-His

## Properties

<b>Purity</b>	> 85 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.
<b>Shipping</b>	This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at < - 20°C.
<b>Formulation</b>	Supplied as a 0.2 µm filtered solution of 20mM Tris-HCl, 1mM DTT, 30% Glycerol, 100mM NaCl, pH 8.0.
<b>Reconstitution</b>	Not Applicable

## Background

Importin subunit beta-1(KPNB1) is a member of the importin beta family. KPNB1 contains 1 importin N-terminal domain and 19 HEAT repeats. It is involved in nucleocytoplasmic transport, a signal- and energy-dependent process, takes place through nuclear pore complexes embedded in the nuclear envelope. Its 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. The import of proteins containing a classical nuclear localization signal (NLS) requires the NLS import receptor, a heterodimer of importin alpha and beta subunits. Each of these subunits is part of the karyopherin family of proteins. Importin alpha binds the NLS-containing cargo in the cytoplasm and importin beta docks the complex at the cytoplasmic side of the nuclear pore complex. It mediates autonomously the nuclear import of ribosomal proteins RPL23A, RPS7 and RPL5.

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