

Recombinant Mouse KPNB1 Protein (1-876 aa), His-tagged

Cat. No. KPNB1-609M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse KPNB1 Protein (1-876 aa) is produced by E. coli expression system. This protein is fused with a 6xHis tag at the N-terminal. Protein Description: Full Length.
Species	Mouse
Source	E.coli
ProteinLength	1-876 aa
Description	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. Acting autonomously, serves itself as NLS 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. Mediates autonomously the nuclear import of ribosomal proteins RPL23A, RPS7 and RPL5. Binds to a beta-like import receptor binding (BIB) domain of RPL23A. In association with IPO7 mediates

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the nuclear import of H1 histone. In vitro, mediates nuclear import of H2A, H2B, H3 and H4 histones. In case of HIV-1 infection, binds and mediates the nuclear import of HIV-1 Rev. Imports SNAI1 and PRKCI into the nucleus.

Form Tris-based buffer, 50% glycerol

Molecular Mass 101.2 kDa

AA Sequence

MELITILEKTVSPDRLELEAAQKFLERAAVENLPTFLVELSRVLANPGNSQVARVAAG
LQIKNSLTSKDPDIKAQYQQRWLAIANARREVKNYVLQTLGTETYRPSSASQCVAG
IACAEIPVSQWPELIPQLVANVTNPNSTEHEMKESTLEAIGYICQDIDPEQLQDKSNEIL
TAIIQGM RKEEPSNNVKLAATNALLNSLEFTKANFDKESERHFIMQVVCEATQCPDT
RVRVAALQNLVKIMSLYYQYMETYMGPALFAITIEAMKSDIDEVALQGIEFWSNVCDE
EMDLAIEASEAAEQGRPPEHTSKFYAKGALQYLVPILTQTLTKQDENDDDDWNPC
KAAGVCLMLLSTCCEDDIVPHVLPFIKEHIKNPDWRYRDAAVMAFGSILEGPEPNQL
KPLVIQAMPTLIELMKDPSVVVRDTTAWTVGRICELLPEAAINDVYLAPLLQCLIEGLS
AEPRVASNVCWAFSSLAEAAEYAADVADDQEEPATYCLSSSFELIVQKLLETTDRPD
GHQNNLRSSAYESLMEIVKNSAKDCYPVQKTTLVIMERLQQVLQMESHIQSTSDRI
QFNDLQSLLCATLQNVLRKVQHQDALQISDVVMASLLRMFQSTAGSGGVQEDALMA
VSTLVEVLGGFEFLKYMEAFKPFLGIGLKNYAEYQVCLAAVGLVGDLCRALQSNILPFC
DEVMQLLLENLGNENVHRSVKPQILSVFGDIALAIGGEFKKYLEVVLNLTQQASQAQ
VDKSDFDMVDYLNELRESCLEAYTGIVQGLKGDQENVHPDVMLVQPRVEFILSFIDHI
AGDEDHTDGVVACAAGLIGDLCTAFGKDVLLKLVPEARPMIHELLTEGRRSKTNKAKTL
ATWATKELRKLKNQA

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.

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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	Kpn 1 karyopherin (importin) beta 1 [<i>Mus musculus</i>]
Official Symbol	KPNB1
Synonyms	KPNB1; SCG; PTAC97; IPOB; Impnb; AA409963; MGC8315;
Gene ID	16211
mRNA Refseq	NM_008379
Protein Refseq	NP_032405
UniProt ID	P70168

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116 kDa

66.2 kDa

45 kDa

35 kDa

25 kDa

18. kDa

14.4 kDa



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

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