

Importin subunit beta-1 Recombinant Protein | Kpnb1 recombinant protein

Recombinant Mouse Importin subunit beta-1

CATALOG # AAA113514	HOST E Coli or Yeast or Baculovirus or Mammalian Cell
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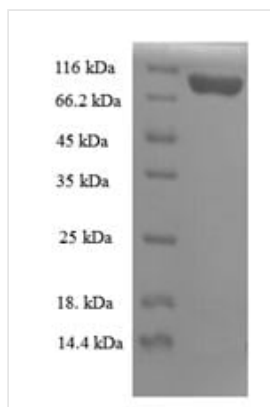
PRODUCT SYNONYMS

Importin subunit beta-1; Recombinant Mouse Importin subunit beta-1; Karyopherin subunit beta-1; Nuclear factor p97; Pore targeting complex 97 kDa subunit; PTAC97; SCG; Kpnb1 recombinant protein

PRODUCT SPECIFICATIONS

Host	E Coli or Yeast or Baculovirus or Mammalian Cell
Purity/Purification	Greater or equal to 85% purity as determined by SDS-PAGE.
Form/Format	Lyophilized or liquid (Format to be determined during the manufacturing process)
Sequence Positions	1-876. Full Length
Sequence	MELITILEKT VSPDRLELEA AQKFLERAAV ENLPTFLVEL SRVLANPGNS QVARVAAGLQ IKNSLTSKDP DIKAQYQQRW LAIDANARRE VKNYVLQTLG TETYRPSSAS QCVAGIACAE IPVSQWPELI PQLVANVTNP NSTEHMKEST LEAIGYICQD IDPEQLQDKS NEILTAIQG MRKEEPSNNV KLAATNALLN SLEFTKANFD KESERHFIMQ VVCEATQCPD TRVRVAALQN LVKIMSLYYQ YMETYMGPAL FAITIEAMKS DIDEVALQGI EFWSNVCDEE MDLAIEASEA AEQGRPEHT SKFYAKGALQ YLVPILTQTL TKQDENDDDD DWNPCKAAGV CLMLLSTCCE DDIVPHVLPF IKEHIKNPDW RYRDAAVMAF GSILEGPEPN QLKPLVIQAM PTIELMKDP SVVVRDITAW TVGRICELLP EAAINDVYLA PLLQCLIEGL SAEPRVASNV CWAFFSLAEA AYEAADVADD QEEPATYCLS SSFELIVQKL LETTDRPDGH QNNLRSSAYE SLMEIVKNSA KDCYPAVQKT TLVIMERLQQ VLQMESHQTS TSDRIQFNDL QSLLCATLQN VLRKVQHQDA LQISDVVMAS LLRMFQSTAG SGGVQEDALM AVSTLVEVLG GEFLKYMEAF KPFLGIGLKN YAEYQVCLAA VGLVGDLCRA LQSNILPFCF EVMQLLLENL GNENVHRSVK PQILSVFGDI ALAIGGEFCK YLEVVLNTLQ QASQAQVDKS DFDMDVDYLN LRESCLEAYT GIVQGLKGDQ ENVHPDVMLV QPRVEFILSF IDHIAGDEDH TDGVVACAAG LIGDLCTAFG KDVCLKLVEAR PMIHELLTEG RRSKTNKAKT LATWATKELR KLKNQA
Preparation and Storage	Store at -20 degree C, for extended storage, conserve at -20 degree C or -80 degree C.

IMAGES



SDS-PAGE

ADDITIONAL INFORMATION

Related Product Information for Kpnb1 recombinant protein	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 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.
References	Localization of the importin-beta gene to mouse chromosome 11D and rat chromosome 10q32.1.Matsuda Y., Hamatani K., Itoh M., Takahashi E., Araki R., Abe M.Genomics 36:213-215(1996) The nuclear pore-targeting complex binds to nuclear pores after association with a karyophile.Imamoto N., Shimamoto T., Kose S., Takao T., Tachibana T., Matsubae M., Sekimoto T., Shimonishi Y., Yoneda Y.FEBS Lett. 368:415-419(1995) Lineage-specific biology revealed by a finished genome assembly of the mouse.Church D.M., Goodstadt L., Hillier L.W., Zody M.C., Goldstein S., She X., Bult C.J., Agarwala R., Cherry J.L., DiCuccio M., Hlavina W., Kapustin Y., Meric P., Maglott D., Birtle Z., Marques A.C., Graves T., Zhou S., Teague B., Potamouis K., Churas C., Place M., Herschleb J., Runnheim R., Forrest D., Amos-Landgraf J., Schwartz D.C., Cheng Z., Lindblad-Toh K., Eichler E.E., Ponting C.P.PLoS Biol. 7:E1000112-E1000112(2009) Mural R.J., Adams M.D., Myers E.W., Smith H.O., Venter J.C. Multiple pathways contribute to nuclear import of core histones.Muehlhaeusser P., Mueller E.-C., Otto A., Kutay U.EMBO Rep. 2:690-696(2001) The C-terminal nuclear localization signal of the sex-determining region Y (SRY) high mobility group domain mediates nuclear import through importin beta 1.Forwood J.K., Harley V., Jans D.A.J. Biol. Chem. 276:46575-46582(2001) Comprehensive identification of phosphorylation sites in postsynaptic density preparations.Trinidad J.C., Specht C.G., Thalhammer A., Schoepfer R., Burlingame A.L.Mol. Cell. Proteomics 5:914-922(2006) Novel importin-alpha family member Kpna7 is required for normal fertility and fecundity in the mouse.Hu J., Wang F., Yuan Y., Zhu X., Wang Y., Zhang Y., Kou Z., Wang S., Gao S.J. Biol. Chem. 285:33113-33122(2010) The adoption of a twisted structure of importin-beta is essential for the protein-protein interaction required for nuclear transport.Lee S.J., Imamoto N., Sakai H., Nakagawa A., Kose S., Koike M., Yamamoto M., Kumasaka T., Yoneda Y., Tsukihara T.J. Mol. Biol. 302:251-264(2000) The structure of importin-beta bound to SREBP-2 nuclear import of a transcription factor.Lee S.J., Sekimoto T., Yamashita E., Nagoshi E., Nakagawa A., Imamoto N., Yoshimura M., Sakai H., Chong K.T., Tsukihara T., Yoneda Y.Science 302:1571-1575(2003)

NCBI AND UNIPROT INFORMATION

NCBI GI #	88014720
NCBI GeneID	16211
NCBI Accession #	NP_032405.3
NCBI GenBank Nucleotide #	NM_008379.3
UniProt Accession #	P70168; Q62117; Q6GTI5
Molecular Weight	101.2 kDa
NCBI Official Full Name	importin subunit beta-1
NCBI Official Synonym Full Names	karyopherin (importin) beta 1
NCBI Official Symbol	Kpnb1
NCBI Official Synonym Symbols	IPOB; Impnb; AA409963
NCBI Protein Information	importin subunit beta-1
UniProt Protein Name	Importin subunit beta-1
UniProt Gene Name	Kpnb1

UniProt Synonym Gene Names	Impnb; PTAC97
UniProt Entry Name	IMB1_MOUSE

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/kpnb1-recombinant-protein-e-coli/113514>