

## Product datasheet for **MC206137**

### **Kpnb1 (BC052438) Mouse Untagged Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Kpnb1 (BC052438) Mouse Untagged Clone  
**Tag:** Tag Free  
**Symbol:** Kpnb1  
**Synonyms:** AA409963; Impnb; IPOB  
**Mammalian Cell Selection:** Neomycin  
**Vector:** PCMV6-Kan/Neo (PCMV6KN)  
**E. coli Selection:** Kanamycin (25 ug/mL)

**Fully Sequenced ORF:** >BC052438  
 GCCGCCGCCGACAGGCCGGGCCGCTCTTGCAGAGAGTCCCCGCCCGCTCACCTCCGCCATGGAGCT  
 CATAACCATCCTCGAGAAGACCGTGTCTCCGGATCGGCTGGAGCTGGAAGCGGCGCAGAAGTTCCTCGAG  
 CGTGCGGCCGTGAGAATCTGCCACGTTCTTGTGGAAGTGTCCAGAGTGTGGCAAACCCAGGAAACA  
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 CCAAGGATTGTTACCCTGCCGTGCAGAAGACCACCTGGTCATTATGGAACGGCTGCAGCAGGTGCTTCA  
 GATGGAGTCCCATATCCAGAGCACATCCGACAGAATCCAGTTCATGACCTCCAGTCTCTACTCTGCGCG



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ACTCTTCAGAATGTTCTCCGAAAAGTGCAGCATCAAGATGCTCTGCAGATCTCTGATGTGGTCATGGCCT
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CACACTGGTGGAAAGTGTGGGTGGTGAATTCCTCAAGTACATGGAGGCCTTTAAACCATTCTGGGCATT
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TTGAATTGCAATGACGAAAATTAATGTTGAACGATCTGATAAAATAACCATTTGGAAAAAAAAAAAAA AAAAAA

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- Restriction Sites:** Ascl-NotI
- ACCN:** BC052438
- Insert Size:** 2631 bp
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
  2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
  3. Close the tube and incubate for 10 minutes at room temperature.
  4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
  5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
- RefSeq:** [BC052438](#), [AAH52438](#)

RefSeq Size: 3856 bp

RefSeq ORF: 2631 bp

Locus ID: 16211

Cytogenetics: 11 D

**Gene Summary:** 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. Imports SNAI1 and PRKCI into the nucleus (By similarity).[UniProtKB/Swiss-Prot Function]