

Product datasheet for **RG234789**

KPNB1 (NM_001276453) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	KPNB1 (NM_001276453) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	KPNB1
Synonyms:	IMB1; Impnb; IPO1; IPOB; NTF97
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG234789 representing NM_001276453
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAAGGAGTCGACATTGGAAGCCATCGGTTATATTTGCCAAGATATAGACCCAGAGCAGCTACAAGATA
 AATCCAATGAGATTCTGACTGCCATAATCCAGGGGATGAGGAAAGAAGAGCCTAGTAATAATGTGAAGCT
 AGCTGCTACGAATGCACTCCTGAACTCATTGGAGTTCACCAAAGCAAACCTTTGATAAAGAGTCTGAAAGG
 CACTTTATTATGCAGGTGGTCTGTGAAGCCACACAGTGTCCAGATACGAGGGTACGAGTGGCTGCTTTAC
 AGAATCTGGTGAAGATAATGTCCTTATATTATCAGTACATGGAGACATATATGGGTCCTGCTTTTTTGC
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 ACACCAGCAAGTTTTATCGAAGGGAGCACTACAGTATCTGGTCCAATCCTCACACAGACACTAACTAA
 ACAGGACGAAAAATGATGATGACGATGACTGGAACCCCTGCAAAGCAGCAGGGGTGTGCCTCATGCTTCTG
 GCCACCTGCTGTGAAGATGACATTGTCCACATGTCCTCCCTTCATTAAGAACACATCAAGAACCCAG
 ATTGCGGTACCGGGATGCAGCAGTGTGGCTTTTGGTTGTATCTTGAAGGACCAGAGCCCAGTCACT
 CAAACCACTAGTTATACAGGCTATGCCACCCTAATAGAATTAATGAAAGACCCAGTGTAGTTGTTGCA
 GATACAGCTGCATGGACTGTAGGCAGAAATTTGTGAGCTGCTTCTGAAGCTGCCATCAATGATGTCTACT
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 GGCTTTCTCCAGTCTGGCTGAAGCTGCTTATGAAGCTGCAGACGTTGCTGATGATCAGGAAGAACCAGCT
 ACTTACTGCTTATCTTCTCATTGAATCATAGTTTGAAGCTCCTAGAGACTACAGACAGACCTGATG
 GACACCAGAACAACCTGAGGAGTTCTGCATATGAATCTCTGATGGAATTTGTAAAAACAGTGCCAAAGGA
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 TGACATGGTGGATTATCTGAATGAGCTAAGGGAAGCTGCTTGGAAAGCCTATACTGGAATCGTCCAGGGA
 TTAAGGGGGATCAGGAGAACGTACACCCGGATGTGATGCTGGTACAACCCAGAGTAGAATTTATTTCTGT
 CTTTCATTGACCATTGCTGGAGATGAGGATCACACAGATGGAGTAGTAGCTTGTGCTGCTGGACTAAT
 AGGGGACTTATGTACAGCATTGGGAAGGATGACTGAAATTAGTAGAAGCTAGGCCAATGATCCATGAA
 TTGTTAACTGAAGGGCGGAGATCGAAGACTAACAAGCAAAAACCTTGTACATGGGCAACAAAAGAAC
 TGAGGAAACTGAAGAACCAAGCT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG234789 representing NM_001276453
Red=Cloning site Green=Tags(s)

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MKESTLEAIGYICQDIDPEQLQDKSNEILTAIIQGMRKEEPSNNVKLAATNALLNSLEFTKANFDKESER
HFIMQVVCEATQCPDTRVRVAALQNLVKIMSLYYQYMETYMGPALFAITIEAMKSDIDEVALQGIEFWSN
VCDEEMDLAIEASEAAEQGRPEHTSKFYAKGALQYLVPILTQTLTKQDENDDDDWNPCKAAGVCLMLL
ATCCEDDIVPHVLPFIIKEHIKNDWRYRDAAVMAFGCILEGPEPSQLKPLVIQAMPTLIELMKDPSVVVR
DTAAWTVGRICELLPEAAINDVYLAPLLQCLIEGLSAEPRVASNVCWAFSSLAEEAAYEAADVADDQEPA
TYCLSSSFELIVQKLETTDRPDGHQNNLRSSAYESLMEIVKNSAKDCYPAVQKTTLVIMERLQQVLQME
SHIQSTSDRIQFNDLQSLLCATLQNVLRKVQHQDALQISDVVMASLLRMFQSTAGSGGVQEDALMAVSTL
VEVLGGEFLKYMEAFKPFLLGIGLKNYAEYQVCLAAGLVGDLCRALQSNIIIPFCDEVMQLLLENLGNENV
HRSVKPQILSVFGDIALAIGGEFKYLEVVLNTLQQASQAQVDKSDYDMVDYLNELRESCLEAYTGIVQG
LKGQDENVHPDVMLVQPRVEFILSFIDHIAGDEDHTDGVVACAAGLIGDLCTAFGKDVLLKLVEARPMIHE
LLTEGRRSKTNKAKTLATWATKELRKLKNQA
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TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001276453

ORF Size: 2193 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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: [NM_001276453.2](#)

RefSeq Size: 3951 bp

RefSeq ORF: 2196 bp

Locus ID: 3837

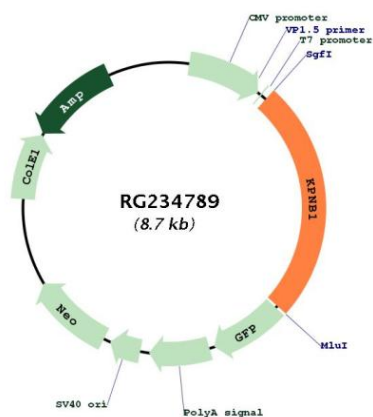
UniProt ID: [Q14974](#)

Cytogenetics: 17q21.32

Protein Families: Druggable Genome, Stem cell - Pluripotency

Gene Summary: Nucleocytoplasmic transport, a signal- and energy-dependent process, takes place through nuclear pore complexes embedded in the nuclear envelope. The import of proteins containing a nuclear localization signal (NLS) requires the NLS import receptor, a heterodimer of importin alpha and beta subunits also known as karyopherins. 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. In the presence of nucleoside triphosphates and the small GTP binding protein Ran, the complex moves into the nuclear pore complex and the importin subunits dissociate. Importin alpha enters the nucleoplasm with its passenger protein and importin beta remains at the pore. Interactions between importin beta and the FG repeats of nucleoporins are essential in translocation through the pore complex. The protein encoded by this gene is a member of the importin beta family. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Feb 2013]

Product images:



Circular map for RG234789