

Product datasheet for **MG211042**

Kpnb1 (NM_008379) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kpnb1 (NM_008379) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Kpnb1
Synonyms:	AA409963; Impnb; IPOB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG211042 representing NM_008379
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGAGCTCATAACCATCCTCGAGAAGACCGTGTCTCCGGATCGGCTGGAGCTGGAAGCGGCCGAGAAGT
 TCCTCGAGCGTGCGGCCGTGGAGAATCTGCCACAGTTCCTTGTGGAAGTGTCCAGAGTGTGCAAAACCC
 AGGAAACAGTCAGGTTGCCAGAGTTGCAGCTGGTCTACAAATTAAGAACTCTTTGACATCGAAAAGATCCA
 GATATCAAGGCACAATACCAGCAGAGGTGGCTCGCTATTGATGCTAATGCTCGACGGGAAGTCAAGAACT
 ATGTTTTGCAGACGTTGGGCACAGAAACGTACCGGCTAGTTCGGCTCACAGTGTGTGGCTGGTATTGC
 TTGTGCAGAGATCCAGTAAGCCAGTGGCCAGAGCTAATTCCTCAGCTGGTAGCCAATGTCACAAAACCC
 AACAGCACAGAGCATATGAAAGAGTCCACATTGGAAGCTATTGGTTACATTTGCCAAGATATAGACCCAG
 AGCAGCTACAGGATAAGTCCAATGAGATCCTGACTGCCATAATCCAGGGGATGAGGAAGGAGGAGCCTAG
 TAACAATGTGAAGCTGGCTGCTACCAATGCACTCCTGAACTCACTAGAGTTCACCAAAGCAAACCTTTGAC
 AAAGAGTCTGAAAGGCACCTTTATCATGCAAGTGGTCTGTGAAGCCACACAGTGTCCAGACACAAGGGTAA
 GAGTGGCTGCTTTACAGAATCTAGTGAAGATAATGTCCTTGTATTACCAGTACATGGAGACATACATGGG
 TCCTGCCCTTTTTGCAATCACAATTGAAGCAATGAAAAGTACATTGATGAGGTGGCTCTCCAAGGGATA
 GAGTTCTGGTCCAATGTCTGTGATGAGGAAATGGATTTGGCCATTGAGGCTTCAGAGGCAGCAGAGCAAG
 GACGCCCCCGGAGCACACCAGCAAATTTACGCCAAGGGAGCACTGCAGTACTTGGTGGCCATCCTCAC
 ACAGACTGACTAAACAGGATGAAAACGATGACGACGATGACTGGAACCTTGCAAAGCAGCTGGGGTG
 TGCCTCATGCTCCTGTCCACCTGCTGTGAAGATGACATTGTGCCGATGTCTTCCCTTTATTAAGAGC
 ACATCAAGAACCCTGACTGGCGATACCGGGATGCAGCAGTGGCTTTTGGCAGTATCTTGAAGGAGC
 AGAGCCTAATCAACTGAAACCATTAGTCATACAGGCTATGCCACCCCTAATAGAACTAATGAAAGACCCC
 AGTGTAGTTGTCGAGACACAACAGCGTGGACTGTGGCAGGATCTGTGAGCTGTGCCTGAAGCCGCCA
 TCAACGATGTCTACCTGGCACCCCTTTTACAGTGTCTGATTGAGGGCCTCAGTGTGAGCCAGGGTGGC
 TTCAAATGTGTGCTGGGCTTTTTCCAGTCTGGCTGAAGCTGCGTATGAAGCTGCAGATGTAGCTGATGAT
 CAAGAAGAACCAGCCACCTATTGTCTGTCTTCTCCTTTGAACTTATAGTTCAGAAGCTATTGGAGACCA
 CCGACAGACCCGATGGACACCAGAATAACCTGAGAAGCTCTGCGTATGAGTCTCTCATGGAATCGTAAA
 GAACAGTGCCAAGGATTGTTACCCTGCCGTGCAGAAGACCACCCTGGTCATTATGGAACGGCTGCAGCAG
 GTGCTTCAGATGGAGTCCATATCCAGAGCACATCCGACAGAATCCAGTTCATGACCTCCAGTCTCTAC
 TCTGCGGACTCTCAGAATGTTCTCCGAAAGTGCAGCATCAAGATGCTCTGCAGATCTCTGATGTGGT
 CATGGCCTCCCTGTTAAGGATGTTCAAAGCACAGCTGGGTCTGGGGGAGTGCAAGAAGATGCCCTGATG
 GCAGTTAGCACACTGGTGGAAAGTGTGGGTGGTGAATTCCTCAAGTACATGGAGGCCTTTAAACCATTCC
 TGGGCAATTGGACTGAAAATTAATGCTGAGTACCAGGATGTTTGGCAGCTGTTGGCTTAGTTGGAGACTT
 GTGCCGAGCCCTGCAGTCTAACATCTTGCCTTTCTGTGACGAGGTGATGCAGCTGCTCCTGGAGAAGTGG
 GGAATGAGAATGTCCACAGGTCTGTGAAGCCACAGATTCTGTCTGTGTTGGTGTATTGCTCTTGCCA
 TTGGTGGAGAGTTTAAAAAATACTTAGAGTTGTATTGAATACTCTACAGCAGGCCTCCCAAGCCAGGT
 TGACAAGTCAGACTTTGACATGGTGGATTATCTGAATGAGCTAAGAGAAAGCTGCTTGAAGCTTATACG
 GGAATCGTCCAGGATTGAAGGAGATCAGGAAAACGTACACCCGATGTAATGCTGGTACAGCCAGAG
 TAGAATTTATTTGTCTTTTATTGATCACATTGCTGGAGATGAGGATCATACGGACGGAGTGGTAGCCTG
 TGCTGCTGGTCTGATAGGGGACTTGTGTACAGCCTTCGGGAAGGATGACTGAAGTTAGTAGAAGCTAGG
 CCAATGATCCAATGAATTAATACTGAAGGGCGGAGATCGAAGACTAACAAAGCAAAGACCCTCGCTACGT
 GGGCAACCAAGGAACTGAGGAACTGAAGAACCAGGCT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – **GTTTAA**

Protein Sequence: >MG211042 representing NM_008379
Red=Cloning site Green=Tags(s)

MELITILEKTVSPDRLELEAAQKFLERAAVENLPTFLVELSRVLANPGNSQVARVAAGLQIKNSLTSKDP
 DIKAQYQQRWLAIDANARREVKNYVLQTLGTETYRPSASQCVAGIACAEIPVSQWPELIPQLVANVTNP
 NSTEHMKESTLEAIGYICQDIDPEQLQDKSNEILTAI IQGMRKEEPSNNVKLAATNALLNSLEFTKANFD
 KESERHFIMQVVCEATQCPDTRVRVAALQNLVKIMSLYQYMETYMGPALFAITIEAMKSDIDEVALQGI
 EFWSNVCEEMDLAIEASEAAEQGRPPEHTSKFYAKGALQYLVPILTQTLTKQDENDDDDWNPCKAAGV
 CLMLLSTCCEDDIPVHVLPIKEHIKPNPDWRYRDAAVMAFGSILEGPEPNQLKPLVIQAMPTLIELMKDP
 SVVVRDTTAWTVGRICELLPEAAINDVYLAPLLQCLIEGLSAEPRVASNVCWAFSSLAEEAYEAADVADD
 QEEPATYCLSSSFELIVQKLETTDRPDGHQNNLRSSAYESLMEIVKNSAKDCYPVAVQKTTLVIMERLQQ
 VLQMESHIQSTSDRIQFNDLQSLLCATLQNVLRKVQHQDALQISDVVMASLLRMFQSTAGSGGVQEDALM
 AVSTLVEVLGGFELKYMEAFKPFGLIGLKNYAEYQVCLAAVGLVGDLCRALQSNILPFCDEVMQLLENL
 GNENVHRSVKPQILSVFGDIALAIGGEFKKYLEVVLNTLQQASQAQVDKSDFDMDVDYLNELRESCLEAYT
 GIVQGLKGDQENVHPDVMLVQPRVEFILSFIDHIAGDEDHTDGVVACAAGLIGDLCTAFGKDVLLKLYEAR
 PMIHELLTEGRRSKTNKAKTLATWATKELRKLKNQA

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

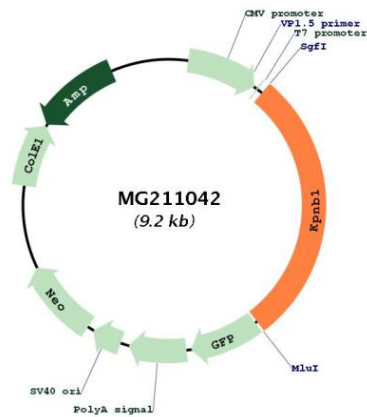
Cloning Scheme:



ACCN:	NM_008379
ORF Size:	2628 bp
OTI Disclaimer:	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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</p>
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:	<ol style="list-style-type: none"> 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_008379.3 , NP_032405.3
RefSeq Size:	5909 bp
RefSeq ORF:	2631 bp
Locus ID:	16211
UniProt ID:	P70168
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]

Product images:

Circular map for MG211042