

Product datasheet for **MR208477**

Kpna2 (BC003274) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kpna2 (BC003274) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Kpna2
Synonyms:	2410044B12Rik; IPOA1; PTAC58; Rch1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR208477 representing BC003274
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTCCACGAACGAGAATGCTAACTACCAGCTGCCCGACTTAACAGGTTCAAGAACAAGGGGAAGGACA
 GCACAGAAATGCGTCGCCGCCGAATAGAAAGTTAATGTGGAAGCTCAGGAAAGCTAAAAAGATGAGCAGAT
 GCTGAAAAGAAGAAACGTCAGCTCCTTTCTGATGATGCTACTTCTCCGTACAGGAAAACCGGAACAAC
 CAGGGTACTGTAAATTGGTCTGTGAGGACATTGTTAAAGGCATAAACAGTAACAATTTGGAAAGCCAGC
 TCCAAGCTACTCAAGCTGCTCGGAAATTGCTTTCTAGAGAGAAACAGCCTCCTATAGACAACATCATCCG
 GGCTGTTTATCCAAAATTTGTGCTTCTTGGGCAAACTGATTGTAGTCTATTAGTTTGTAGTCT
 GCTTGGGCACTACCAACATTGCTTCTGGAACATCTGAACAGACCAAGCTGTGGTGGATGGAGGTGCTA
 TCCAGCGTTTATTTCTCTCTTGGCATCTCCTCATGCTCACATCAGCGAGCAAGCTGTTTGGGCTCTTG
 AAACATTGCAGGTGATGGTTGAGCTTTCCGAGACTTAGTTATCAAACACGGTGCATTGACCCACTGTTG
 GCACTTCTTGAGTTCGGATCTGTCTACCTTGGCATGTGGTTACTTACGTAATCTTACCTGGACGCTTT
 CAAACCTTTGTCGAAAACAAGAACCTGCACCTCCCTTAGATGCCGTTGAGCAGATTCTTCTACGTTAGT
 TCGACTCTGCACCACAATGATCCAGAAGTATTGGCAGATTCTGCTGGGCCATTTCTACCTGACTGAT
 GGTCCAAATGAGCGCATTGAGATGGTTGTGAAGAAAGGAGTTGTTCCCAACTTGTGAAGCTTCTAGGAG
 CTAAGTGAAGTGCATGACTCCCGCACTAAGAGCCATAGGGAATATTGCTACTGGAACAGATGAGCA
 GACTCAGAAAGTATCGATGCAGGAGCACTTGCAGTCTTCCAGCCTGCTAACAAACCCCAAACTAAT
 ATTCAGAAAGGAGCCACATGGACAATGTGAACATTACAGTGGACGCCAGGACCAGATACAGCAAGTTG
 TGAATCACGGCTAGTCCCTTTCTTGTGGTCTCTCTAAGCGGACTTTAAGACACAGAAGGAGGC
 CGCGTGGCTATAACCAACTATACCAGCGTGGGACTGTTGAGCAGATTGTGTATCTCGTCACTGTGGG
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 TTTCAAATATCTTTCAGGCTGCAGAGAACTAGGTGAGACAGAAAAGCTTAGTATAATGATTGAAGAGTG
 TGGAGGCTTGGATAAAATTGAAGCACTACAGAGGCATGAAAACGAGTCTGTATACAAGGCCTCATTGAAC
 TTAATTGAGAAGTACTTCTCAGTGGAGGAAGAGGAAGTCAAAATGTGGTCCAGAACTACCTCTGAAG
 GCTTCGCCTTCAAGTTCAGGATGGAGCTCCTGGGACCTTAACCTC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

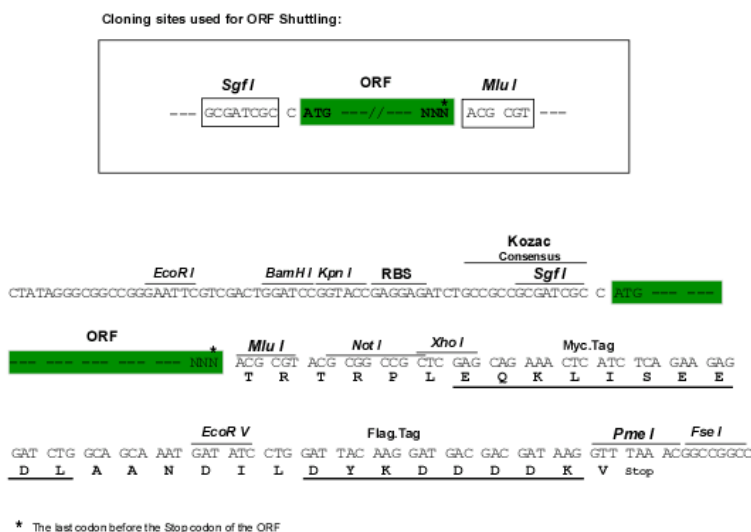
>MR208477 representing BC003274
 Red=Cloning site Green=Tags(s)

MSTNENANLPAARLNRFKKNKGKDSSTEMRRRRRIEVNVELRKAKKDEQMLKRRNVSSFPDDATSPLQENRNN
 QGTVNWSVEDIVKGINNNLESQIQATQAARKLLSREKQPPIDNIRAGLIPKFVSFLGKTDSPFIQFES
 AWALTNIASGTSEQTKAVVDGGAIPAFISLLASPHAHISEQAVWALGNIAGDGSFRDLVIKHGAIDPLL
 ALLAVPDLSTLACGYLRNLTWLSNLCRKNPAPPLDAVEQILPTLVRLHHNDPEVLADSCWAI SYLTD
 GPNERIEMVVKGVVPQLVKLLGATELPIVTPALRAIGNIVTGTDEQTKVIDAGALAVFPSLLTNPKTN
 IQKEATWTMSNITAGRQDQIQVNVHGLVPFLVGVLSKADFKTQKEAAWAIITNYTSGGTVEQIVYLVHCG
 IIEPLMNLISAKDTKIIQVILDAISNIFQAAEKLGETEKL SIMIEECGLDKIEALQRHENESVYKASLN
 LIEKYFSVEEEDQNVVPEITSEGFQVQDQDAPGTFNF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

ACCN: BC003274

ORF Size: 1587 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: [BC003274.1](#)
RefSeq Size: 1962 bp

RefSeq ORF: 1589 bp

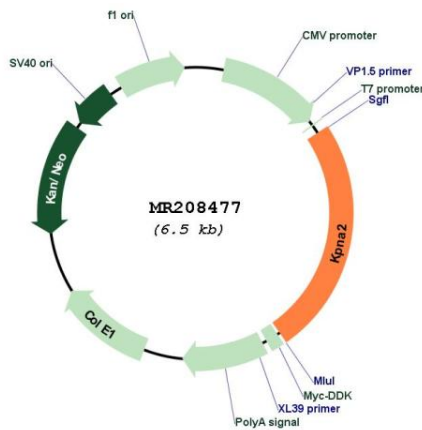
Locus ID: 16647

Cytogenetics: 11 E1

MW: 71.9 kDa

Gene Summary: Functions in nuclear protein import as an adapter protein for nuclear receptor KPNB1. Binds specifically and directly to substrates containing either a simple or bipartite NLS motif. 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.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR208477