

Product datasheet for **MG208487**

Kpna2 (NM_010655) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kpna2 (NM_010655) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Kpna2
Synonyms:	2410044B12Rik; IPOA1; PTAC58; Rch1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG208487 representing NM_010655
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGC**C

ATGTCCACGAACGAGAATGCTAACTTACCAGCTGCCCCGACTTAACAGGTTCAAGAACAAGGGGAAGGACA
 GCACAGAAATGCGTCGCCGCCGAATAGAAAGTTAATGTGGAAGCTCAGGAAAGCTAAAAAGATGAGCAGAT
 GCTGAAAAGAAGAAACGTCAGCTCCTTTCTGATGATGCTACTTCTCCGTACAGGAAAACCGGAACAAC
 CAGGGTACTGTAAATTGGTCTGTTGAGGACATTGTTAAAGGCATAAACAGTAACAATTTGGAAAGCCAGC
 TCCAAGCTACTCAAGCTGCTCGGAAATTGCTTTCTAGAGAGAAACAGCCTCCTATAGACAACATCATCCG
 GGCTGTTTATCCCAAATTTGTGCTTCTTGGGCAAACTGATTGTAGTCTATTAGTTTGGTCT
 GCTTGGGCACTCACCACATTGCTTCTGGAACATCTGAACAGACCAAAGCTGTGGTGGATGGAGGTGCTA
 TCCAGCGTTTATTTCTCTCTTGGCATCTCTCATGCTCACATCAGCGAGCAAGCTGTTTGGGCTCTTGG
 AAACATTGCAGGTGATGGTTGAGCTTTCCGAGACTTAGTTATCAAACACGGTGCATTGACCCACTGTTG
 GCATTCTTGCAGTTCCCGATCTGTCTACCTTGGCATGTGGTTACTTACGTAATCTTACCTGGACGCTTT
 CAAACCTTTGTCGAAACAAGAACCCTGCACCTCCCTTAGATGCCGTTGAGCAGATTCTTCTACGTTAGT
 TCGACTCTGCACCACAATGATCCAGAAGTATTGGCAGATTCTGCTGGGCCATTTCTACCTGACTGAT
 GGTCCAAATGAGCGCATTGAGATGGTTGTGAAGAAAGGAGTTGTTCCCAACTTGTGAAGCTTCTAGGAG
 CTACTGAAGTCCCATTTGACTCCCGCACTAAGAGCCATAGGGAATATTGCTACTGGAACAGATGAGCA
 GACTCAGAAAGTGATCGATGCAGGAGCACTTGCAGTCTTTCCAGCCTGCTAACAAACCCCAAACTAAT
 ATTCAGAAGGAGGCCACATGGACAATGTCGAACATTACAGCTGGACGCCAGGACCAGATACAGCAAGTTG
 TGAATCACGGCTAGTCCCTTTCTTGTGGTCTCTAAGGCGGACTTTAAGACACAGAAGGAGGC
 CGCGTGGGCTATAACCAACTATACCAGCGGTGGGACTGTTGAGCAGATTGTGTATCTCGTTCACTGTGGG
 ATAATAGAACCTTTGATGAACCTCTGAGTGCAAAAGATACCAAGATTATTGAGGTTATTCTTGACGCCA
 TTTCAAATATCTTTCAGGCTGCAGAGAACTAGGTGAGACAGAAAAGCTTAGTATAATGATTGAAGAGTG
 TGGAGGCTTGGATAAAATTGAAGCACTACAGAGGCATGAAACGAGTCTGTATACAAGGCCTCATTGAAC
 TTAATTGAGAAGTACTTCTCAGTGGAGGAAGAGGAAGATCAAAATGTGGTGCCAGAACTACCTCTGAAG
 GCTTCGCCTTCAAGTTCAGGATGGAGCTCCTGGGACCTTAACTTC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>MG208487 representing NM_010655
 Red=Cloning site Green=Tags(s)

MSTNENANLPAARLNRFKNKGKDSSTEMRRRIEVNVELRKAKKDEQMLKRRNVSSFPDDATSPLENRNN
 QGTVNWSVEDIVKGINSNNLESQEQATQAARKLLSREKQPPIDNIIRAGLIPKFVSFLGKTDSPFIQFES
 AWALTNIASGTSEQTKAVVDGGAIPAFISLLASPHAHISEQAVWALGNIAGDGSFRDLVIKHGAIDPLL
 ALLAVPDLSTLACGYLRNLWTLSNLCRNKNPAPPLDAVEQILPTLVRLHHNDPEVLADSCWAISYLT
 GPNERIEMVVKGVVPQLVKLLGATELPIVTPALRAIGNIVTGTDEQTQKVIDAGALAVFPSLLTNPKTN
 IQKEATWTMSNITAGRQDQIQQVNVHGLVPFLVGVLKADFKTQKEAAWAITNYTSGGTVEQIVYLHVC
 IIEPLMNLLSAKDTKIIQVILDAISNIFQAAEKLGETEKLIMIEECGLDKIEALQRHENESVYKASLN
 LIEKYFSVEEEDQNVVPETTTSEGFQVQDGPATFNF

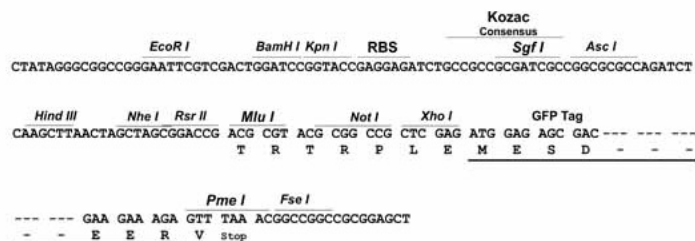
TRTRPLE – GFP Tag – V

Restriction Sites:

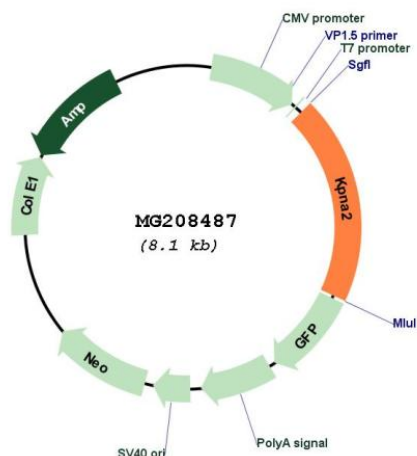
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN:	NM_010655
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:	<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_010655.3 , NP_034785.1
RefSeq Size:	2071 bp
RefSeq ORF:	1590 bp
Locus ID:	16647
UniProt ID:	P52293
Cytogenetics:	11 E1
Gene Summary:	<p>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]</p>