

## Product datasheet for **MG208477**

### **Kpna2 (BC003274) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Kpna2 (BC003274) 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:**

>MG208477 representing BC003274  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGTCCACGAACGAGAATGCTAACTACCAGCTGCCCGACTTAACAGGTTCAAGAACAAGGGGAAGGACA  
 GCACAGAAATGCGTCGCCGCCGAATAGAAAGTTAATGTGGAAGCTCAGGAAAGCTAAAAAGATGAGCAGAT  
 GCTGAAAAGAAGAAACGTCAGCTCCTTTCTGATGATGCTACTTCTCCGTACAGGAAAACCGGAACAAC  
 CAGGGTACTGTAAATTGGTCTGTTGAGGACATTGTTAAAGGCATAAACAGTAACAATTTGGAAAGCCAGC  
 TCCAAGCTACTCAAGCTGCTCGGAAATTGCTTTCTAGAGAGAAACAGCCTCCTATAGACAACATCATCCG  
 GGCTGTTTATCCAAAATTTGTGCTTCTTGGGCAAACTGATTGTAGTCTATTAGTTTGGTCT  
 GCTTGGGCACTACCAACATTGCTTCTGGAACATCTGAACAGACCAAGCTGTGGTGGATGGAGGTGCTA  
 TCCAGCGTTTATTTCTCTCTTGGCATCTCCTCATGCTCACATCAGCGAGCAAGCTGTTTGGGCTCTTG  
 AAACATTGCAGGTGATGGTTCAGCTTCCGAGACTTAGTTATCAAACACGGTGCATTGACCCACTGTTG  
 GCACTTCTGCAGTTCGGATCTGTCTACTTGGCATGTGGTACTTACGTAATCTTACCTGGACGCTTT  
 CAAACCTTTGTCGAAAACAGAACCCTGCACCTCCCTTAGATGCCGTTGAGCAGATTCTTCTACGTTAGT  
 TCGACTCTGCACCACAATGATCCAGAAGTATTGGCAGATTCTGCTGGGCCATTTCTACCTGACTGAT  
 GGTCCAAATGAGCGCATTGAGATGGTGTGAAGAAAGGAGTTGTTCCCAACTTGTGAAGCTTCTAGGAG  
 CTACTGAACTGCCATTGTGACTCCCGCACTAAGAGCCATAGGGAATATTGCTACTGGAACAGATGAGCA  
 GACTCAGAAAGTGATCGATGCAGGAGCACTTGCAGTCTTCCAGCCTGCTAACAAACCCCAAACTAAT  
 ATTCAGAAGGAGGCCACATGGACAATGTCGAACATTACAGCTGGACGCCAGGACCAGATACAGCAAGTTG  
 TGAATCACGGCTAGTCCCTTTCTTGTGGTCTCTCTAAGGCGGACTTTAAGACACAGAAGGAGGC  
 CGCGTGGGCTATAACCAACTATACCAGCGTGGGACTGTTGAGCAGATTGTGTATCTCGTTCACTGTGGG  
 ATAATAGAACCTTTGATGAACCTCTGAGTGCAAAAGATACCAAGATTATTCAGGTTATTCTTGACGCCA  
 TTTCAAATATCTTTCAGGCTGCAGAGAACTAGGTGAGACAGAAAAGCTTAGTATAATGATTGAAGAGTG  
 TGGAGGCTTGGATAAAATTGAAGCACTACAGAGGCATGAAAACGAGTCTGTATACAAGGCCTCATTGAAC  
 TTAATTGAGAAGTACTTCTCAGTGGAGGAAGAGGAAGTCAAAATGTGGTCCAGAACTACCTCTGAAG  
 GCTTCGCCTTCAAGTTCAGGATGGAGCTCCTGGGACCTTAACCTC

**ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA**

**Protein Sequence:**

>MG208477 representing BC003274  
 Red=Cloning site Green=Tags(s)

MSTNENANLPAARLNRFKKNKGDSTEMRRRRIEVNVELRKAKKDEQMLKRRNVSSFPDDATSPLEENRNN  
 QGTVNWSVEDIVKGINSNNLESQIQATQAARKLLSREKQPPIDNIIIRAGLIPKFSVFLGKTDGSPQIFES  
 AWALTNIASGTSEQTKAVVDGGAIPAFISLLASPHAHISEQAVWALGNIAGDGSFRDLVIKHGAIDPLL  
 ALLAVPDLSTLACGYLRNLTWLSNLNRKNPAPPLDAVEQILPTLVRLHNDPEVLADSCWAIISYLT  
 GPNRIEMVVKGVVQLVKLLGATELPIVTPALRAIGNIVTGTDEQTQKVIDAGALAVFPSLLTNPKTN  
 IQKEATWTMSNITAGRQDQIQVVNHLVPFLVGVLSKADFKTQKEAAWAITNYTSGGTVEQIVYLVHCG  
 IIEPLMNLISAKDTKIIQVILDAISNIFQAAEKLGETEKLIMIEECGLDKIEALQRHENESVYKASLN  
 LIEKYFSVEEEDQNVVPEPSTSEGFQVQDQVQDGFNF

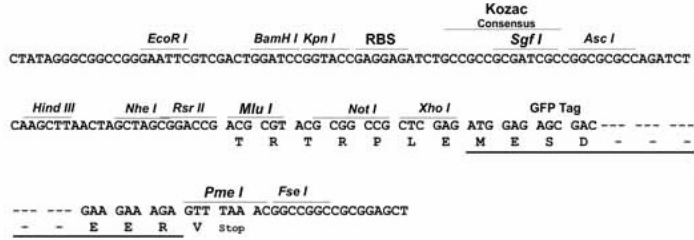
**TRTRPLE - GFP Tag - V**

**Restriction Sites:**

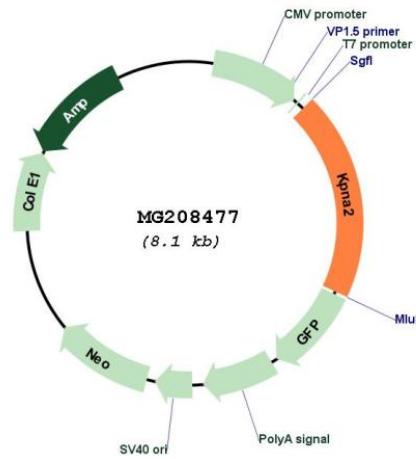
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



<b>ACCN:</b>	BC003274
<b>ORF Size:</b>	1587 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">BC003274.1</a>
<b>RefSeq Size:</b>	1962 bp
<b>RefSeq ORF:</b>	1589 bp
<b>Locus ID:</b>	16647
<b>Cytogenetics:</b>	11 E1
<b>Gene Summary:</b>	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]