

## Product datasheet for **MR208599**

### **Kpna1 (NM\_008465) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Kpna1 (NM_008465) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Kpna1
Synonyms:	AW494490; IPOA5; mSRP1; NPI1; Rch2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR208599 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGTCCACACCAGGAAAAGAGAAGTTTCGCCTGAAAAGTTACAAGAACAATCTCTGAATCCTGATGAGA  
 TCGCAGGAGGAGGGAGGAAGAAGGACTGCAGTTACGGAAGCAGAAAAGAGAAGAGCAGTTATTCAGAG  
 AAGAAATGTTGCTACAGCAGAAGAAGAAACAGAAGAAGATTATGTCTGATGGTGGCTTTCATGAGGCC  
 CAGATAAATAACATGGAGATGGCACCAGGGGTGTATCACCTCTGACATGACTGATATGATATTCTCGA  
 ATAGCCCAGAGCAGCAGCTCTCTGCAACACAGAAGTTTAGGAACTACTTTCAAAGAACCTAATCTCTCC  
 AATTGATGAAGTCATCAACACACCAGGAGTAGTGGCCAGGTTTGTGGAGTTCTCAAACGAAAAGAAAAT  
 TGTACTGCAGTTTGAATCAGCTTGGGCTGACAAAATTGCTTCAGGAACTCTCTCAGACCCGGA  
 ATGTGATTCAGGCAGGAGCTGTGCCTATTTTCATCGAGTTGCTTAGCTCAGAGTTTGAAGATGTCCAGGA  
 GCAGGCAGTTTGGGCTCTTGGCAACATTGCTGGAGATAGTACCATGTGCAGGGACTATGTCTTAACTGC  
 AATATCTTCTCTCTCTGAGTTATTTTCAAAGCAAACCGCTTGACCATGACCCGGAATGCAGTAT  
 GGGCTTTATCTAATCTCTGTAGAGGGAAGGCCACCTCCAGAATTTGCTAAGGTTTCTCCCTGTCTGAA  
 TGTCTTTCTTGGTTACTGTTTGTGAGTACTGATGTACTAGCTGATGCTTGTGGGCTCTCTCATACT  
 CTGTGAGTGGACCAATGATAAAATCCAAGCAGTCATCGATGCAGGAGTCTGCAGGAGGCTTGTGGAAC  
 TTCTGATGCATAATGACTATAAAGTAGTTTCTCTGCTTTCGGGCTGTGGGAAACATTGTCACAGGGGA  
 TGATATTCAGACACAGGTAATTTGAATTGCTCAGCTCTCAAAGTTTATTGCATCTGCTGAGTAGCCCA  
 AAGGAATCTATCAAAAAGAAGCCTGTTGGACAATCTCTAATATTACAGCTGAAATAGGCACAGATCC  
 AGACTGTGATAGATGCTAACATGTTCCAGCTCTTATTAGTATATTGCAACAGCAGAGTCCGGACAAG  
 GAAGGAAGCTGCTTGGCCATCACAAATGCAACTTCTGGAGGATCAGCTGAGCAGATCAAGTACCTAGTA  
 GAACTGGTTGTATCAAGCCACTCTGTGATCTCTCACTGTCATGGATGCAAAAATTGTACAGTTGCC  
 TAAATGGCTTAGAAAACATCCTGAGGCTTGAGAAACAAGAAGCCAAACGAAACGGCTCAGGCATTAATCC  
 TTAGTGTCTTTGATTGAGGAAGCATATGGTCTGGATAAAATTGAGTTCTTACAGAGTATGAAAACAG  
 GAGATCTATCAAAGGCTTTTGTCTTATTGAGCATTACTTTGGACCGAAGATGAGGACAGCAGCATCG  
 CACCCAGTTGATCTTAGCCAGCAGCAGTACATCTCCAGCAGTGTGAAGCTCTATGGAAGTTTCCA  
 GCTT

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR208599 protein sequence  
 Red=Cloning site Green=Tags(s)

MSTPGKENFRLKSYKNKSLNPDEMRRRREEEGLQLRKQKREEQLFKRRNVATAEEETEEVMSDGGFHEA  
 QINMEMAPGGVITSDMTDMIFSNSPEQQLSATQKFRKLLSKEPNPPIDEVINTPGVVARFVEFLKRKEN  
 CTLQFESAWLNIASGNSLQTRNVIQAGAVPIFIELLSSEFEDVQEAVWALGNIAGDSTMCRDYVLC  
 NILPPLLQLFSKQNRLLMTRNAVWALSRLCRGKSPPEFAKVSPCLNVLWLLFVSDTDVLADACWALS  
 LSDGPNDKIQAVIDAGVCRRLVELLMHNDYKVVSPALRAVGNIVTGGDIQTQVILNCSALQSLHLLSSP  
 KESIKKEACWTISNITAGNRAQIQTVIDANMFPALISILQTAEFRTKAAAWAITNATSGGSAEQIKYLV  
 ELGCIKPLCDLLTVMDAKIVQVALNGLNLRLEGEAKRNGSGINPYCALIEEAYGLDKIEFLQSHENQ  
 EIQKAFDLIEHYFGTEDESSIAQPVDLSQQYIFQQCEAPMEGFQL

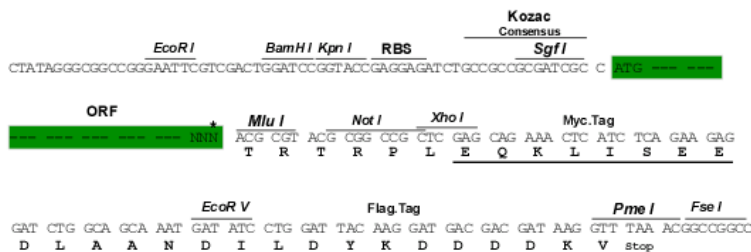
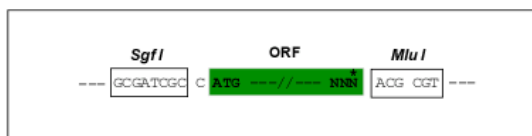
**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shutting:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_008465

**ORF Size:** 1617 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\\_008465.5](#)
**RefSeq Size:** 4022 bp

**RefSeq ORF:** 1617 bp

**Locus ID:** 16646

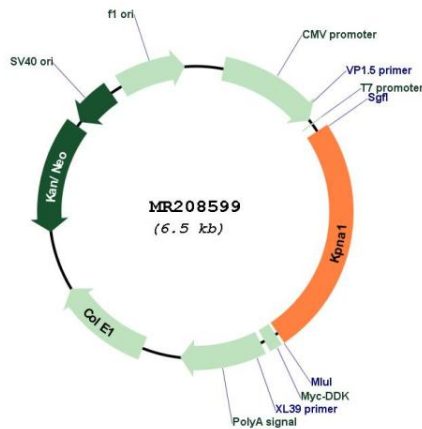
**UniProt ID:** [Q60960](#)

**Cytogenetics:** 16 B3

**MW:** 60.2 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 MR208599