

Product datasheet for **MR208582**

Kpna6 (NM_008468) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kpna6 (NM_008468) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Kpna6
Synonyms:	IPOA7; Kpna5; NPI-2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR208582 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGAGACCATGGCAAGCCCAGGGAAGGACAATTATCGAATGAAGAGCTATAAGAACAATGCCTTAAACC
 CTGAGGAAATGAGACGAAGGAGGGAGGAAGAGGGCATTAGCTTCGGAACAGAAAGCGGGAACAACAAT
 TTTTAAACGAGAGAAATGTAGAGCTGATTAAATGAAGAAGCTGCCATGTTTGATAGTCTGCTGATGGATTCC
 TACGTGAGCTCTACAACCTGGGAGAGCGTGATCACGAGAGAGATGGTAGAGATGCTCTTCTCGGACGACT
 CTGACTTGCAGTTAGCAACCACGCAGAAATTCGGAAACTCCTGTCCAAAGAGCCGAGTCTCCAATAGA
 TGAAGTTATTAACACTCCAGGAGTAGTTGATCGGTTTGTGGAGTTTCTGAAGAGAAATGAGAATTGTACA
 TTGCAGTTTGAAGCTGCCTGGGCTCTAACAAACATTGCCTCTGGAACGTCTCAGCAGACCAAAATGTCA
 TTGAAGCAGGAGCTGTCCCATTTTTATAGAGTTACTTAACTCAGACTTTGAAGATGTACAAGAACAGGC
 AGTGTGGGCGCTTGGAACATCGCTGGAGATAGCTCGTTTGCAGGGATTATGTCTTGAATTGCTCCATC
 CTTAACCCCTTGTTAACTCTTACTAAGTCCACGACTGACAATGACACGGAATGCAGTCTGGGCC
 TGTCAAACCTCTGCCGAGGCAAGAACCCTCCTCCAGAGTTTGAAAGGTCTCTCCTTGTTGCTGTATT
 GTCCCGACTGCTCTTTCAGCAGTACTCAGACTTGTCTGGCAGATGCTTGTGGGCCCTCTCTACCTGTCT
 GATGGCCCAATGAGAAGATCCAGGCAGTCATAGACTCTGGAGTCTGCCGAGATTGGTAGAGCTTCTGA
 TGCACAACGATTACAAAGTGGCTCTCCTGCCTTGAGAGCTGTGGTAATATTGCTACTGGGGATGACAT
 CCAGACCCAGGTCACTTAAATTGTTTACGCCCTCCCTTGCTCCTCCACTACTGAGCAGCTCTAAGGAA
 TCAATCCGGAAGGAAGCTTGCTGGACCATTTCAAACATCACTGCTGGCAACAGGGCTCAAATACAGGCTG
 TCATAGATGCAACATCTTCCCTGTATTGATTGAAATCCTTCAGAAAGCAGAGTCCGTACAAGGAAAGA
 AGCAGCCTGGGCCATCACCAACGCCACATCAGGAGGAACTCCTGAGCAATCAGGTACCTGGTATCACTG
 GGCTGCATTAAGCCCCTGTGTGACTTGTGACTGTAATGGATTCAAAAATTGTGCAAGTGGCCCTCAATG
 GACTAGAGAACATTCTTCGGCTTGAGAGCAAGAAAGCAAGCGTAGTGGCTCAGGGGTCAATCCCTACTG
 TGGCCTCATCGAGGAAGCCTATGGCTTGAGATAAAATTGAGTTTCTCCAGAGCCACGAGAACCAGGAAATC
 TACCAGAAGGCCTTTGACCTCATTGAGCACTACTTTGGTGTAGAGGATGACGACAGCAGCCTGGCTCCTC
 AGGTGGATGAGACGCAACAGCAGTTCATCTTCCAGCAGCTGAGGCCCATGGAGGGCTTCCAGCTA

ACGCGTACGCGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR208582 protein sequence
 Red=Cloning site Green=Tags(s)

METMASPGKDNRYRMKSYKNNALNPEEMRRRREEEGIQLRKQKREQQLFKRRNVELINEEAAMFDSLMD
 YYSSTTGESVITREMVMLFSDSDLQLATTQKFRKLLSKEPSPIDEVINTPGVVDRFVEFLKRNENCT
 LQFEAAWALTNIASGTSQQTIVIEAGAVPIFIELLNSDFEDVQEAVWALGNIAGDSSLCRDYVLNCSI
 LNPLLTLTKSTRLTMTRNAVWALSNLCRGNPPPEFAKVSPCLPVL SRLFSSDSLADACWALSYS
 DGPNEKIQAVIDSGVCRRLVELLMHNDYKVASPALRAVGNIVTGDDIQTQVILNCSALPCLLHLLSSSKE
 SIRKEACWTISNITAGNRAQIQAVIDANIFPVLIEILQKAEFRTRKEAAWAITNATSGGTPEQIRYVSL
 GCIKPLCDLLTVMSKIVQVALNGLNLRLEQESKRSGSVNYPYGLIEEAYGLDKIEFLQSHENQEI
 YQKAFDLIEHYFGVEDDSSLAPQVDETQQQFIFQQPEAPMEGFQL

TRTRPLEQ**KL**ISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_008468

ORF Size: 1608 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_008468.4](#), [NP_032494.3](#)

RefSeq Size: 5711 bp

RefSeq ORF: 1611 bp

Locus ID: 16650

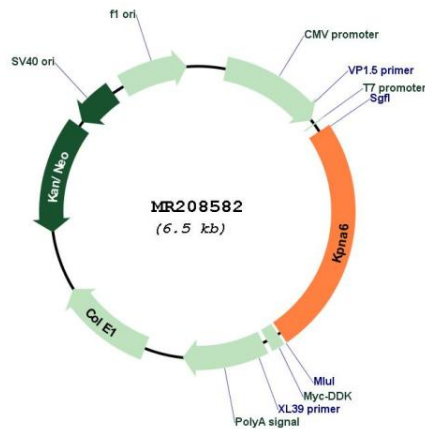
UniProt ID: [O35345](#)

Cytogenetics: 4 D2.2

MW: 60 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 MR208582