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Product datasheet for RR212168

Kpna5 (NM_001025113) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kpna5 (NM_001025113) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Kpna5
Synonyms:	Ipoa6
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin

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ORF Nucleotide Sequence:

>RR212168 representing NM_001025113
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCTAGTCCTGGTAAGGATAACTACAGAATGAAAAGTTACAAGAACAAAGCCTTAAATCCTCAAGAGA
TGCGAAGACGAAGAGAAGAAGAAGGAATACAACTTCGAAAACAAAAAAGGGAGGAGCAGTTGTTCAAACG
CAGAAATGTCTCTTTGCCCAGAAATGATGACTGTATGCTGGAGAGCCCTATCCAGGACCCAGATGTCAGC
TCCACTGTACCCATTCCAGAGGAAGACATGATCACAGCAGATATGATTCAGATGATTTTCTCTAATAACG
CTGAACAGCAACTGACTGCAACACAGAAATTTAGAAAACTGCTTTCTAAAGAACCCAATCCACCAATAGA
TCAAGTTATACAGAAACCAGGAGTTGTACAGAGATTTGTGAAGTTTCTTGAAAGAAATGAAAATTGCACT
TTACAATTCGAGGCTGCCTGGGCGTTAACTAATATAGCATCTGGAACTTTTCTGCATACCAAGGTAGTGA
TTGAAACCGGGGCTGTGCCAATTTTTATCAGACTTCTCACTTCAGAACATGAAGATGTACAGGAACAGGC
GGTTTGGGCACTTGGTAACATTGCTGGCGACAATGCAGAATGCAGGGATTTTGTTTTGAATTGTGAAATA
CTTCCACCTCTTTTAGAGTTATTAACAAATTCAAACAGACTTACAACCACCAGAAATGCTGTATGGGCCC
TCTCAAATTTATGTAGAGGCAAAAACCCTCCTCCAAATTTTAGTAAGGTTTCACCTTGCTTAAATGTCTT
ATCCCGGTTGTTGTTTAGCAGTGATCCAGATGTGTTAGCAGATGTGTGCTGGGCCCTTTCTTATCTCTCT
GATGGACCCAATGATAAAATTCAAGTAGTCATTGATTCTGGAGTCTGCCGAAGATTGGTGGAACTTTTGA
TGCACAATGACTATAAAGTTGTATCACCTGCATTAAGAGCAGTTGGTAATATTGTAACTGGTGATGACAT
TCAAACACAGGTCATTTTGAATTGTTCTGCATTGCCCTGCCTTTTACATTTGCTGGGAAGTCCAAAGGAG
TCAGTTAGAAAGGAAGCCTGCTGGACCATTTCTAACATCACTGCGGGAAACAGAATGCAGATCCAGGCTG
TCATAGATGGAAGTATTTTCCCTGTTTTGATTGAGGTCCTCCAGAAAGCAGAATTTCGTACCAGAAAAGA
AGCAGCGTGGGCTATAACCAATGCCACATCGGGAGGCGCTCCAGAGCAGATAAGGTATTTGGTAACCTTG
GGCTGCATTAAACCACTTTGTGACCTTTTGACTGTCATGGACTCCAAAATAGTTCAAGTTGCTTTGAATG
GACTTGAAAATATTTTACGCCTTGGAGAACGAGAATCTAAGCAGAATGGAGTGGGCATCAATCCATACTG
TGCTCTCATTGAAGAAGCGTACGGCTTGGATAAAATAGAGTTTCTGCAAAGTCATGAAAACCAGGAAATT
TACCAGAAGGCTTTTGATCTGATTGAACGCTATTTTGGTGTGGAGGAGGATGACCCTAGTCTCGTTCCTC
AGGTGGATGAGCAGCAGCGGCAGTTTCTCTTTCAGCAGTGCGAGGCACCAGGAGAAGGCTTCCAGCTC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

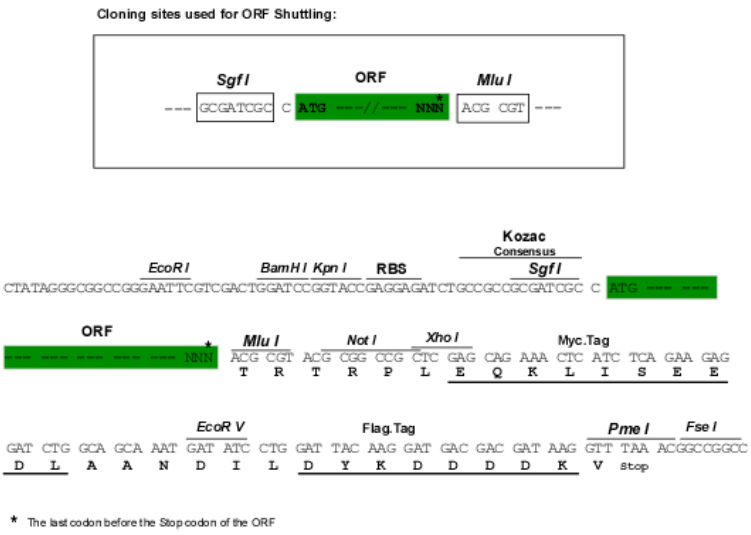
>RR212168 representing NM_001025113
Red=Cloning site Green=Tags(s)

MASPGKDNYRMKSYKNKALNPQEMRRRREEEGIQLRKQKREEQLFKRRNVSLPRNDDCMLESPIQDPDVS
STVPIPEEDMITADMIQMIFSNNAEQQLTATQKFRKLLSKEPNPPIDQVIQKPGVVQRFVKFLERNENCT
LQFEAAWALTNIASGTFLHTKVVIETGAVPIFIRLLTSEHEDVQEQAVWALGNIAGDNAECRDFVLNCEI
LPPLLELLTNSNRLTTTRNAVWALSNLCRGKNPPPNFSKVSPCLNVLSRLLFSSDPDVLADVCWALSYLS
DGPNDKIQVVIDSGVCRRLVELLMHNDYKVVSPALRAVGNIVTGDDIQTQVILNCSALPCLLHLLGSPKE
SVRKEACWTISNITAGNRMQIQAVIDGSIFPVLIEVLQKAEFRTRKEAAWAITNATSGGAPEQIRYLVTL
GCIKPLCDLLTVMDSKIVQVALNGLENILRLGERESKQNGVGINPYCALIEEAYGLDKIEFLQSHENQEI
YQKAFDLIERYFGVEEDDPSLVPQVDEQQRQFLFQQCEAPGEGFQL

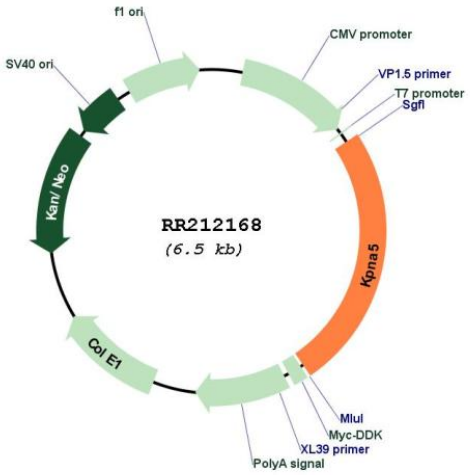
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:	NM_001025113
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.
RefSeq:	NM_001025113.1, NP_001020284.1
RefSeq Size:	1664 bp
RefSeq ORF:	1611 bp
Locus ID:	294392
UniProt ID:	Q56R16
Cytogenetics:	20q11
MW:	60.3 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. Mediates nuclear import of STAT1 homodimers and STAT1/STAT2 heterodimers by recognizing non-classical NLSs of STAT1 and STAT2 through ARM repeats 8-9 (By similarity).[UniProtKB/Swiss-Prot Function]