

Product datasheet for **MC206473**

Kpna1 (BC006771) Mouse Untagged Clone

Product data:

| | |
|---------------------------|---------------------------------------|
| Product Type: | Expression Plasmids |
| Product Name: | Kpna1 (BC006771) Mouse Untagged Clone |
| Tag: | Tag Free |
| Symbol: | Kpna1 |
| Synonyms: | mSRP1, NPI1, IPOA5 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | PCMV6-Kan/Neo (PCMV6KN) |
| E. coli Selection: | Kanamycin (25 ug/mL) |



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Fully Sequenced ORF: >BC006771
 GCGAGGCCTGGT GAGCGCCGCCGTGGT GCGCGCCGGCTGGTCAAGGTTGTGCGCAGAAGAGGCGCAGCGG
 GCGGGCCAAGAGCGAGCGTCTCCCTCTTCGTAGTGGCACCGGGACCGGTGCGCTGGAGCCGAAATCATGT
 CCACACCAGGAAAAGAGAAGCTTTGCGCTGAAAAGTTACAAGAACAATCTCTGAATCCTGATGAGATGCG
 CAGGAGGAGGGAGGAAGAAGGACTGCAGTTACGGAAGCAGAAAAGAGAAGAGCAGTTATTCAAGAGAAGA
 AATGTTGCTACAGCAGAAGAAGAACAAGAAGAAGTTATGTCTGATGGTGGCTTTTCATGAGGCCCAGA
 TAAATAACATGGAGATGGCACCAGGGGGTGCATCACCTCTGACATGACTGATGATGATATTCTCGAATAG
 CCCAGAGCAGCAGCTCTCTGCAACACAGAAGTTTAGGAACTACTTTCAAAGAACCTAATCCTCCAATT
 GATGAAGTCATCAACACACCAGGAGTAGTGCCAGGTTTGTGGAGTTCCTCAAACGAAAAGAAAATTGTA
 CACTGCAGTTTGAATCAGCTTGGGTCTGACAAATATTGCTTCAGGAACTCTTTCAGACCCGGAATGT
 GATTACAGCAGGAGCTGTGCCTATTTTCATCGAGTTGCTTAGCTCAGAGTTTGAAGATGCCAGGAGCAG
 GCAGTTTGGGCTCTTGGCAACATTGCTGGAGATAGTACCATGTGCAGGGACTATGTCTTAACTGCAATA
 TCCTTCTCTCTTCTGCAGTTATTTCAAAGCAAACCGCTTGACCATGACCCGGAATGCAGTATGGGC
 TTTATCTAATCTCTGTAGAGGGAAGAGCCACCTCCAGAATTTGTAAGGTTTCTCCTGTCTGAATGTC
 CTTTCTTGGTTACTGTTTGTGAGTACTGATGACTAGCTGATGCTTGTGGGCTCTCTCATACCTGT
 CAGATGGACCCAATGATAAAATCCAAGCAGTCATCGATGCAGGAGTCTGCAGGAGCTTGTGGAACCTCT
 GATGCATAATGACTATAAAGTAGTTTCTCTGCTTTGCGGGCTGTGGGAAACATTGTCACAGGGGATGAT
 ATTCAGACACAGGTAATTTTGAATTGCTCAGCTTCAAAGTTTATTGCATCTGCTGAGTAGCCCAAAGG
 AATCTATCAAAAAGAAGCCTGTTGGACAATCTCTAATATTACAGCTGGAAATAGGGCACAGATCCAGAC
 TGTGATAGATGCTAACATGTTCCAGCTCTTATTAGTATATTGCAAAACAGCAGAGTTCGGACAAGGAAG
 GAAGCTGCTTGGGCCATCACAATGCAACTTCTGGAGGATCAGCTGAGCAGATCAAGTACCTAGTAGAAC
 TGGGTTGATCAAGCCACTCTGTGATCTCTACTGTCATGGATGCAAAAATTGTACAGGTTGCCCTAAA
 TGGCTTAGAAAACATCCTGAGGCTTGGAGAACAAGAAGCCAACGAAACGGCTCAGGCATTAATCCTTAC
 TGTGCTTTGATTGAGGAAGCATATGGTCTGGATAAAAATTGAGTTCTTACAGAGTCATGAAAACAGGAGA
 TCTATCAAAAGGCTTTTGTATCTTATTGAGCATTACTTTGGGACCGAAGATGAGGACAGCAGCATCGCACC
 CCAGGTTGATCTTAGCCAGCAGCAGTACATCTCCAGCAGTGTGAAGCTCCTATGGAAGGTTTCCAGCTT
 TGAAGCAATCCTCTCCTTCTTGTCTGTGTCAGACCAGGCTATCCAGTCAAGTCTCTTGTGGAGCCCA
 CAGTCTCATGGAGCTAATCTCTCAAATGTTTTCCATAACTGTTTGCCTCATTGCTTGCCTTGGCG
 ACCTGCTCTCTTACACACATCTGAAAACCTCTGGCTCTCTGTGGTGAATACCTTTTTATTACAAGGT
 AACCAGAACGGCCACTCTTTATGAAAAATCCCTAAGCTTTGGAGATCCGACTTACATTAGAGTCAT
 GGAATATATACATACTAATGTGGCTCCCTTTTTTGTGGGGAAAAAAGAGGACTCTTCTCATTCCG
 TAAAGTGGGAAAATGACATTGAAAGATAAACTAAAACCTTTATCTTGAATTTTACACAACCTACAGGG
 AGATATTTAGACTTGTGTATACGTCAGAGTACTCTTCTCGAGTCTTCCACAGTGAATCAACCTTGGAG
 TACCTGGTGGCTTTTCTAGCCACATTTGCATTAATCCTTATTGAGATGGGATGGTTTTCTTCTCTAA
 TGGAGTCATTTTCTCAGATATTAAGTTAAACCATCCAATCCCTCACCTTCAGCCTTCAAGTGTGC
 TTCTAGTTGTGAGGAATGCTGAAGAATTAACACTTTGACTTTTAAATGTGATCCTGGCTTGGCAGATTC
 CTTAAAGCAGGAAGGAGAGAAGCATATATTAGTTTGTATGGCTTTTGTCTCTTGTGTTTTGTTTCTTA
 GGATTTGGAAGTGGTTTCAAGTTTAAACGCTGGTATGAAGGCTAAAAGTCTTAAAGTAAAACCATGTTCAA
 AATCCAATTAAGACTAAGAACATAAAACCCATCACTTTGTTTAAACCGGAAAAAAAAAAAAAAAAAAAAA AAAAAA

- Restriction Sites:** EcoRI-NotI
- ACCN:** BC006771
- Insert Size:** 1617 bp
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- 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: [BC006771](#), [AAH06771](#)

RefSeq Size: 2667 bp

RefSeq ORF: 1617 bp

Locus ID: 16646

Cytogenetics: 16 B3

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]