

Product datasheet for **RR200322**

Epn2 (NM_021852) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Epn2 (NM_021852) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Epn2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RR200322 representing NM_021852
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGACAACTTCATCTATTAGACGGCAGATGAAAAACATTGTGAACAATTACTCAGAGGCTGAAATCAAAG
 TCCGGGAAGCCACCTCCAATGACCCATGGGGCCATCCAGCTCTCTGATGACTGAGATTGCTGACCTGAC
 CTATAATGTGGTAGCCTTCTCGGAGATCATGAGCATGGTTTGAAGCGGCTTAATGACCATGGCAAGAAC
 TGGCGACATGTATAACAAGGCGCTGACACTGCTGGACTACCTTATCAAGACAGTTCTGAGCGGGTGGCC
 AGCAGTGTGGGAGAACATCTTTGCTATACAGACTCTGAAGGACTTCCAGTACATTGACCGTGATGGCAA
 GGACCAGGGTATTAATGTTTCGAGAGAAGTCAAAGCAACTGGTTGCTCTCCTCAAGGATGAGGAGCGGCTG
 AAGTTGAGAGGGTTCAAGCTCTCAAACCAAAGAGCGCATGGCTCAGGTGGCCACTGGTGTGGGCAGCA
 ACCAGATCACCTTCGGTCGAGGCTCCAGCCAGCCCAACCTTTCTACCAGTACTCAGAGCAAGATATGG
 CAAGGCTGGGGGCTCGCCGGGCTCTACCAGGCTCTACTTCCCACGAGTGTCTCTGAGTTGGAGCAG
 GCCCGGCCACAGACCAGCGGAGAAGAGGAGCTGCAGCTGCAACTGGCACTTGCCATGAGCAGAGAGGTTG
 CAGAACAGGAAGAAGCCCTCAGGCGGGGTGATGACCTCAGGTTGCAGATGGCTCTGGAAGAAAGCCGGAG
 AGACACAGTAAAAGTTCCAAAAAGAAAGAGGTGAAAGCTTGCTGCAAGCCAGGCTCCCCTCGCAGCAG
 ACTACCTTGTGGATTTAATGGATGCCCTCCCCAGCTCAGGCCCTGTTGCACAGAAAAGTGGCCGTGGA
 GTACGGGAACCCCTGCCAACAGACCAACCCCTGGGGTGAACCGTGGCACCTGCGAACATTTCTGACCC
 CTGGCCTTCATTTGGTACCAAGCCAGCTGCCTCTGTGGACCCCTGGGAGTACCTACCACAGCCAGCATA
 CAGTCTGTCCCAAGAACTCAGACCTTGGGCAGCCTCACAGCAGCCTGCCTCCGATGCTGGAAAAACAG
 CTGATGCTGGGGGCTGCCAAGCCTAGTCTGCCTCAGGGTCTTTGAGCTCTTCAGTAATTTCAACGG
 TACAGTTAAAGACGATTTTTCTGAATTCGACAACCTTCGAACTTCAAAAAACCAGCTGAGTCAGGGGCC
 TCAGTACCACCCAGGACAGCAGAACCCAGGACCTGACCTCTTTGAGTCTCAATCCTTGACTTCTGCCT
 CGAGCAAGCCTAGCAGTCTCGAAAAACCTGAGTCCTTCTGGGCCCAATGCAGCACTGGTGAACCT
 GGACTCACTGGTACTAAGCCTAATCCACCAGCTCAGTCCCTCAATCCCTTCTGGCACCAGGTGCTGCT
 GCTCCAGTCTGTCAATCCCTTTCAGGTCAACCAGCCCGCCACTGACACTGAACCAGCTTGGGGAA
 GCCCTGTCTGGGAAGCAGTGCCTCTTTGGTCTGGTCCAGGGTGGAGACGGTGGCTCCCATGCCCTC
 TGTAGTCCACACTCAGCACTGGGGCCACTGGCTCCTCATTGACACCACTAGGCCCTACAGCAATGAAC
 ATGGTAGGCAGTGTGGTATTCCCCATCAGCAGCTCAGCCAGCGGGCACAACCAACCTTCTCTCTC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RR200322 representing NM_021852
 Red=Cloning site Green=Tags(s)

MTTSSIRRMKNI VNNYSEAEIKVREATSNDPWPSPSSLMTEIADLTYNVVAFSEIMSMVWKRLNDHGKN
 WRHVYKAL TLLDYLIKTSERVAQCRENIFAIQTLKDFYIDRDGKDQGINVREKSKQLVALLKDEERL
 KVERVQALKTKERMAQVATGVGSNQITFRGSSQPNLSTSYSEQEYKAGGSPASYHGSTSPRVSSLEEQ
 ARPQTSGEELQLQLALAMSREVAEQEERLRRGDDLRLQMALEESRRDVTKVPKKKEVKACKPGSHSQQ
 TTLLDLMDALPSSGPVAQKTEPWSTGTPANQTNPWGGTVAPANISDPWPSFGTKPAASVDPWGVPTTASI
 QSVPKNSDPWAASQQPASDAGKTADAWGAAKPSPASGSFELFNFNGTVKDDFSEFDNLRSTSKPAESGA
 SVPPQDSRTTSPDLFESQSLTSASSKPPSARKTPESFLGPNAALVNLDLVTKNPPAQLNPFLLAPGAA
 APAPVNPQVNPQPLTLNQLRGSPVLGSSASFSGPGVETVAPMPSVAPHSALGATGSSLTPLGPTAMN
 MVGSVGIPPSAAQPA GTTNPFL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:



ACCN: NM_021852

ORF Size: 1749 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_021852.3](#), [NP_068624.2](#)

RefSeq Size: 4053 bp

RefSeq ORF: 1752 bp

Locus ID: 60443

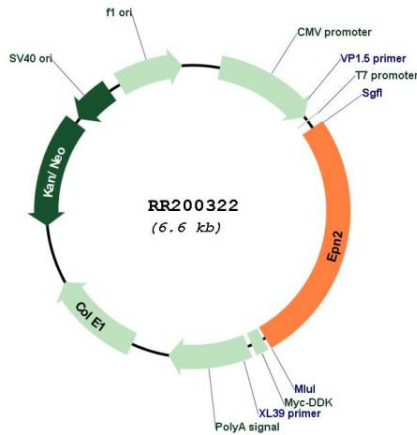
Cytogenetics: 10q22

MW: 62.3 kDa

Gene Summary:

The protein encoded by this gene is a member of the epsin protein family. Epsin proteins are endocytic adaptors that function in the formation of clathrin-coated vesicles. Epsins contain a highly conserved N-terminal homology domain that binds phosphatidylinositol 4,5-bisphosphate in the plasma membrane, two or three ubiquitin interacting motifs, two clathrin-binding motifs, a cluster of aspartate-proline-tryptophan/phenylalanine repeats, and two or three asparagine-proline-phenylalanine tripeptide repeats at the C-terminus. In mouse, simultaneous knockout of this gene and its paralog results in embryonic arrest due to disruption of Notch signaling, suggesting a role as a specialized endocytic adaptor. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Mar 2015]

Product images:



Circular map for RR200322