

Product datasheet for **RC240099**

SEC24B (NM_001300813) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: SEC24B (NM_001300813) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: SEC24B
Synonyms: SEC24
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
ORF Nucleotide Sequence: >RC240099 representing NM_001300813
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGTCCGGCCCCCGGGTCTCTACCCGGCCGCCAGCGCCGGATCCCGCCCAAGTTCGGCGGAGCGG
CCGTCTCAGGAGCCGAGCGCCCGGGCCGGTGC GGCCCGCCGACCAGCAGAACCAGACGGG
ATTTACCATGTTGCCCAAGCTAGTCTTGAACCTCTGGACCAAGCAATCTGCCGCCTCGGCCCTCCAA
ATTGCTGGGAGTACAGGTCCAGCCAGAATCAAATGCAGGTTCCATCTGGATATGGATTGCATCATCAA
ACTATATTGCTCCCTCAGGACATTACTCTCAAGGACCTGGGAAAATGACCTCATTGCCATTGGATACCCA
GTGTGGTGATTACTACTCTGCTCTATAACAGTACCAACACAAAATGTGACTCCTAACACAGTGAACCAG
CAACCAGGAGCACAGCAGTTGTACAGCAGGGTCTCCTGCCCTCATATTGTGGGATCCACTCTAGGAT
CTTTCCAAGGTGCTGCATCGTCAGCATCCCATTTGCATACGAGTGCCTCCCAACCATACTCCTCTTTGT
GAATCACTACAATAGTCCAGCCATGACTCTGCCAGCTCTTCTGTTGCGTCTCAGGGATTCCCTCTACT
TGTGGTCATTATGCTATGTCAACTGTTTCTAATGCCGATCCTAGTGTTCATATCCCTCTCTGCCTG
CTGGTGATACATATGGCAAATGTTTACCTCACAGAATGCTCCGACTGTTAGGCCAGTTAAAGATAATTC
ATTCTCTGGTCAAATACAGCTATCAGCCATCCATCGCCACTTCCACCTTACCATCACAACAGCACCCAC
CAGCAGCAAAGTCTTTCAGGATACAGTACTCTAACGTGGTCATCTCCAGGCCCTCCATCGACTCAAGACA
ATCTCATCCGAAACCACACAGGATCCCTGGCTGTAGCGAACAACAACCAACCATACTGTTGCAGATTC
TTTATCTGTCTGTTATGCAAAATGTTTACGCTCCCAAGTCCAGCCAGTGGTATCCACTGTTTTATCA
GGATCCTCAGGATCCTCATCAACAAGAACCCTCCACTGCAAAATCACCCAGTTGAGCCTGTGACCTCAG
TTACACAGCCATCAGAGCTATTACAACAAAAGGCGTGCAGTATGGTGAATATGTTAATAACCAAGCTAG
CTCCGCACCAACTCCCTTGTATCAACTCCGATGATGAGGAAGAGGAGGAGGATGAGGAAGCAGGT
GTTGACAGCTCTTCTACCACAAGCAGTCTTCTCCAATGCCAACAGTTATGATGCCCTGGAAGGAGGCA
GTTACCCAGATATGCTTTCTTATCAGCAAGCAGTCTGCTCCTGATCCCGCCCTGAACCTGATCCTGC
TTCTGCTCCAGCTCCAGCTTCCAGCTCCAGCTCCTGCTGCTCCCTCAGCCTTCAAAAATGGCTAAGCCTTT
GGCTATGGCTATCCAACACTTCAGCCTGTTATCAGAATGCTACAGCACCCTTATTTCTGGAGTACAGC



CCAGTAACCCGGTATATTCTGGATTCCAGCAGTATCCTCAATATCCTGGTGTGAACCAGCTATCCTCCAG
TATAGGAGGATTGAGTCTTCAGAGTTCTCCACAACCAGAAAGCCTGAGACCTGTAACCTTACTCAGGAG
AGGAATATTTTACCTATGACTCCTGTTTGGGCTCCTGTACCTAATTGAATGCAGACCTCAAAAAATTAA
ACTGTAGCCCAGATTCAATTCGGTGTACTTTGACAAATATTCCACAGACACAGGCTTTACTGAATAAAGC
TAAGCTTCCTTTAGGATTGTTGTTACATCCCTTCAGAGACCTAACGCAATTACCAGTGATAACATCAAT
ACCATTGTGAGGTGCCGATCCTGTGCAACGTATATTAACCCCTTGTATCCTTCATTGATCAACAGTAGAT
GGAAATGCAATTTGTGCTATAGAGTAAACGATGTTCTCTGAAGAATTTATGTATAACCCCTTACCCGATC
TTATGGAGAGCCTCATAAACGACCAGAAGTTCAGAATCAACTGTGGAGTTCATTGCTTCTTCAGATTAC
ATGCTGCGTCTCCTCAACCTGCAGTTTACTTGTGTTTGTAGATGTGTCTCATAATGCAGTGGAAGCTG
GATATTTGACAATTTTGTGCCAGTCACTCCTAGAAAATCTAGACAAGCTTCTGGAGATTACGAACAAG
AATAGGATTATGACCTTTGATAGCACTATTCAATTTCTACAATTTACAAGAAGGATTATCACAGCCTCAA
ATGTTGATTGTGCTGATATAGATGATGTTTTTCTACCTACACCGGATAGTTTACTTGTGAATCTATATG
AAAGTAAAGAGCTTATAAAAGACTTACTGAATGCATTACCAAACATGTTCAACATAACAAGAAAACACA
CAGTGCCTTGGTCTGCACTTCAGGCTGCCTTAAATTAATGTCTCCAACAGGTGGCCGTGTGTCTGTA
TTTCAGACACAGTTACCTTCCTGGGTGCAGGACTTCTGCAATCCAGAGAAGATCCTAATCAGAGATCAA
GTACAAAAGGTGGTACAACATCTTGGCCCTGCAACTGATTTTTATAAGAACTTGCAATTAGATTGCTCGGG
ACAGCAAAGTGCAGTGGATTTGTTCCCTTTAAGTTCACAGTATTCTGATCTTCTCTAGCTTGCATG
TCCAAGTATTCTGCAGGGTGCATCTATTATTATCCATCATTCCACTATACTCACAATCCTTCACAAGCAG
AAAAGTTACAAAAGACCTAAAACGGTATCTCACAAGAAAAATGGGTTTGAAGCTGTTATGAGAATAAG
GTGTAATAAAGTCTTTCAATGCACACTTTTACGGTAACTTCTTTGTCCGTTCTACTGATTTGTTATCC
CTTGCCAAACATCAATCCTGATGCTGGATTTGCGGTGCAGTTGTCAATTGAAGAAAGTTTAAACAGACTT
CCTTAGTATGTTTTCAAACAGCCCTATTATATACATCAAGCAAAGGTGAGCGGAGAATTAGAGTACATAC
ACTTTGTTTGGCAGTGGTAAGTTCCTAGCAGATGTATATGCGGGAGTGGATGTACAAGTGCATCTGC
CTTCTGGCAAACATGGCTGTGGATCGGTCCGTTTCATCAAGTCTGTGAGATGCAAGAGATGCCTTAGTGA
ATGCTGTAGTGGACTCATTGTCTGCATATGGCTCAACTGTCTCAAATTTACAGCACTCTGCATTGATGGC
GCCAGCTCCCTCAAGTTGTTTCTCTCTATGTTTTGGCCCTTCTCAAACAGAAAGCATTAGAACGGGT
ACAAGCACACGGCTGGATGATCGTGTATATGCCATGTGTCAGATAAAGTCTCAGCCACTTGTTCATCTAA
TGAAAATGATTTCATCCCAACTTATACAGGATAGACAGATTGACAGATGAGGGTGCAGTACATGTTAATGA
CAGGATTGTACCACAGCCACCTTCAAATTTGTCTGCAGAGAAGCTGACAAGAGAAGGTGCTTTCCTT
ATGGACTGTGGCTCTGTTTTTACATTTGGGTTGGGAAAGGCTGTGACAATAACTTCATAGAGGATGTGC
TTGGATATACTAATTTTGCATCAATACCACAGAAAATGACACATCTTCCAGAGCTAGATACACTTTCATC
AGAAAAGGCCAGATCCTTCATAACTTGGCTTAGAGACAGCAGACCATTAAGTCCAATCCTTCACATAGTA
AAAGATGAGAGTCTGCCAAAGCAGAATTTTTTTCAGCATTGATTGAAGACCGGACAGAGGCTGCATTTT
CTTACTATGAATTTTTGCTTCATGTTTCAGCAGCAGATTTGTAAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC240099 representing NM_001300813
 Red=Cloning site Green=Tags(s)

```

MSAPAGSSHPAASARIPPKFGGAAVSGAAAPAGPGAGPAPHQQNETGFHHVAQASLELLDPSNLPASASQ
IAGSTGPAQNQMVPVSGYGLHHQNYIAPSGHYSQGPVKMTSLPLDTQCGDYYSALYTVPTQNVTPNTVNO
QPGAQQLYSRGPAPHIVGSLGSGFQGAASSASHLHTSASQPYSSFVNHYNSPAMYSASSSVASQGFST
CGHYAMSTVSNAAAYPSVYSPSLPAGDTYGMFTSQNAPTVRPVKDNSFSGQNTAISHPSPPLPSQQHH
QQQSLSGYSTLTWSSPGLPSTQDNLIRNHTGSLAVANNNTITVADSLSCPVMQNVQPPKSPVSTVLS
GSSGSSSTRTPPTANHPVEPVTSVTQPSSELLQQKGVQYGEYVNNQASSAPTPLSSTSDEEEEEEEDEEAG
VDSSTTSSASPMPNSYDALEGGSPDMLSSASSPAPDPAPEPDASAPAPASAPAPVVPQPSKMAKPF
GYGYPTLQPGYQNAAPLISGVQPSNPVYSGFQQYYPQYPGVNQLSSSIGGLSLQSSPQPELRLPVNLTQE
RNILPMPVWAPVNLNADLKKLNCSPDSFRCTL TNIPQTQALLNKAKLPLGLLLHPFRDLTQLPVITSN
TIVRCRSCRTYINPFVSFIDQRRWKCNCYRVNDVPEEFMYNPL TRSYGEPHKRPEVQNSTVEFIASSDY
MLRPPQPAVYLFVLDVSHNAVEAGYLTILCQSLENLDKLPGDSRTRIGFMTFDSTIHFYNLQEGLSQPQ
MLIVSDIDDVFLPTPDSLLVNLYESKELIKDLLNALPNMFTNTRETHSALGPALQAAFKLMSPTGGRVSV
FQTQLPSLGAGLLQSREDPNQRSSTKVQHLGPATDFYKKLALDCSGQQTAVDLFLLSSQYSDLASLACM
SKYSAGCIYYYPFHYTHNPSQAEKLQKDLKRYLTRKIGFEAVMRIRCTKGLSMHTFHGNFFVRSTDLLS
LANINPDAGFAVQLSIEESLTDTSLVCFQTALLYTSSKGERRIRVHTLCLPVVSSLADVYAGVDVQAAIC
LLANMAVDRSVSSSLSDARDALVNAVVDLSAYGSTVSNLQHSALMAPSSKLKFLPYVLLALLKQKAFRTG
TSTRLLDDRVYAMCQIKSQPLVHLMKMIHPNL YRIDRLTDEGAVHVNDRIVPQPLQKLSAEKLTREGAFL
MDCGSVFYIWWGKGCDDNFIEDVLYTNFASIPQKMTLPELDTLSSERARSFITWLRDRSRLSPILHIV
KDESPAIAEFFQHLIEDRTEAAFYYEFLLHVQQQICK
  
```

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

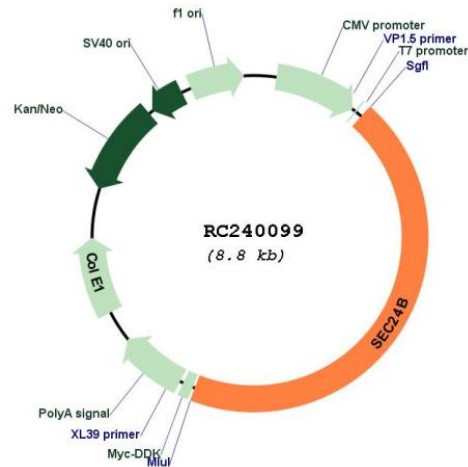
Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001300813

ORF Size: 3894 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_001300813.2](#), [NP_001287742.1](#)

RefSeq Size: 4799 bp

RefSeq ORF: 3897 bp

Locus ID: 10427

UniProt ID: [O95487](#)

Cytogenetics: 4q25

MW: 140.9 kDa

Gene Summary: The protein encoded by this gene is a member of the SEC24 subfamily of the SEC23/SEC24 family, which is involved in vesicle trafficking. The encoded protein is thought to be a cargo-binding component of the COPII vesicle, and is thought to be involved in the transport of secretory proteins from the endoplasmic reticulum to the Golgi apparatus. Mutations in this gene have been associated with neural tube defects, and are thought to be a result of a disruption in interactions with the protein encoded by the VANGL planar cell polarity protein 2 (VANGL2) gene. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Dec 2015]