

## Product datasheet for **RG219074**

### SEC24B (NM\_001042734) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	SEC24B (NM_001042734) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SEC24B
Synonyms:	SEC24
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG219074 representing NM_001042734 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTCGGCCCCCGCGGGTCTCTACCCGGCCGCCAGCGCCGGATCCCGCCAAGTTCGGCGGAGCGG  
CCGTCTCAGGAGCCGAGCGCCCGGGCCGGGTGCGGGCCCGCGCCACCAGCAGAACGGTCCAGC  
CCAGAATCAAATGCAGGTTCCATCTGGATATGGATTGCATCATAAAATATATTGCTCCCTCAGGACAT  
TACTCTCAAGGACCTGGAAAAATGACCTCATTGCCATTGGATACCCAGTGTGGTACTACTCTGCTC  
TCTATACAGTACCAACACAAAATGTGACTCCTAACACAGTGAACCAGCAACCAGGAGCACAGCAGTTGTA  
CAGCAGGGTCTCTGCCCCATATTGTGGATCCACTCTAGGATCTTCCAAGGTGCTGCATCGTCA  
GCATCCCATTTGCATACGAGTGCCTCCCAACCATACTCCTCTTTGTGAATCACTACAATAGTCCAGCCA  
TGTAATCTGCCAGCTCTTCTGTTGCGTCTCAGGGATTTCCCTCTACTTGTGGTCAATATGCTATGCAAC  
TGTTTCTAATGCCCGGTATCCTAGTGTTCATATCCCTCTGCTGCTGGTATACATATGGGCAAATG  
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CTGGAGTACAGCCAGTAACCCGGTATATTCTGGATTCCAGCAGTATCCTCAACAGTATCCTGGTGTGAA  
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AACCTTACTCAGGAGAGGAATATTTTACCTATGACTCCTGTTTGGGCTCCTGTACCTAACTGAATGCAG  
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TCATAGAGGATGTGCTTGGATATACTAATTTTGCATCAATACCACAGAAAATGACACATCTCCAGAGCT  
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CAGAGGCTGCATTTTCTACTATGAATTTTTGCTTCATGTTTACAGCAGCAGATTTGTAAG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:** >RG219074 representing NM\_001042734  
 Red=Cloning site Green=Tags(s)

MSAPAGSSHPAASARIPPKFGGAAVSGAAAPAGPGAGPAPHQNGPAQNQMVPVSGYGLHHQNYIAPSGH  
 YSQPGKMTSLPLDTQCGDYYSALYVPTQNVTPNTVNNQPGAQQLYSRGPPAPHIVGSTLGSFQGAASS  
 ASHLHTSASQPYSSFVNHYNSPAMYSASSSVASQGFSTCGHYAMSTVSNAAYPSVSYPSLPAGDTYGQM  
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 SLACMSKYSAGCIYYYP SFHYTHNPSQAEKLQKDLKRYL TRKIGFEAVMRIRCTKGLSMHTFHGNFVRS  
 TDLLSLANINPDAGFAVQLSIEESLTDTSLVCFQTALL YTSKGGERRIRVHTLCLPVVSSLADVYAGVDV  
 QAAICLLANMAVDRSVSSSLSDARDALVNAVVDLSAYGSTVSNLQHSALMAPSSLKLFLYVYVALLKQK  
 AFRTGTSTRLLDDRVYAMCQIKSQPLVHLMKMIHPNL YRIDRLTDEGAVHVNDRIVPQPLQKLSAEKLT  
 EGAFLMDCGSVFYIWWGKGCDDNFIEDVLGYTNFASIPQKMTHLPELDTLSSERARSFITWLRDRSRPLSP  
 ILHIVKDESPAKAEFFQHLIEDRTEAAF SYEFLLHVQQICK

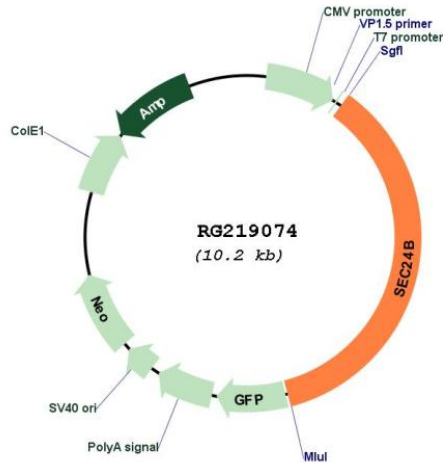
TRTRPLE - GFP Tag - V

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**


**ACCN:** NM\_001042734

**ORF Size:** 3699 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\\_001042734.3](#), [NP\\_001036199.1](#)

**RefSeq Size:** 4544 bp

**RefSeq ORF:** 3702 bp

**Locus ID:** 10427

**UniProt ID:** [O95487](#)

**Cytogenetics:** 4q25

**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]