

## Product datasheet for **RG206346**

### SECISBP2 (NM\_024077) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	SECISBP2 (NM_024077) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SECISBP2
Synonyms:	SBP2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG206346 representing NM\_024077  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCGTCGGAGGGCCGCGGGAGCCGAAAGCGAGGGCATCAAGTTATCAGCAGATGTCAAACCATTTG  
 TCCCAGATTTGCCGGCTCAATGTGGCATGGTTAGAGTCTCAGAAGCATGTGTCTTCCCAGCTCTGC  
 AGCCACATACTATCCGTTTGTTCAGGAACCACCACTGACAGAGCAGAAAAATATACTGAAGACATGGCC  
 TTTGGAGCTTCAACTTTTCCACCTCAGTATTTATCTTCTGAGATAACTCTTCATCCATATGCCTATTCTC  
 CTTATACCCTTGACTCCACACAGAATGTTTACTCAGTGCCTGGCTCCCAGTATCTTTATAACCAACCCAG  
 TTGTTACCGAGGTTTTCAAACAGTGAAGCATCGAAATGAGAACACATGCCCTCTCCACAAGAAATGAAA  
 GCTCTGTTAAGAAGAAAACCTATGATGAGAAAAAACGTATGATCAGCAAAAGTTTGACAGTGAAGGG  
 CTGATGGAATATATCATCTGAGATAAAATCAGCTAGAGGTTACATCATTTGTCCATTTACGCTGAGAA  
 TAGTTTGAATCAGATGGTTACCATAAGCGAACAGACAGGAAATCCAGAATCATTGCAAAAAATGTATCT  
 ACCTCAAACCTGAGTTTGAATTTACCACACTGGACTTTCTGAACTGCAAGGTGACAGAGAACAATATGT  
 CAGAGATACAGAAGCAACCCAAGTGGGGACCTGTCCACTCTGTCTCTACCGACATTTCTCTTCTAAGAGA  
 AGTAGTAAAACAGCTGCAGTGTATCAAAGGGTAAAATAGTGGTAAAAATAACCCAAATGAATCTGTA  
 ACTGCTAATGCCGCTACCAATTCCTTCATGTACAAGAGAGTTATCTTGGACACCAATGGGTTATGTTG  
 TTCGACAGACATTATCTACAGAAGTGTGACGAGCCCTAAAAATGTTACTTCTATGATAAACTTAAAGAC  
 CATTGCTTCATCAGCAGATCCTAAAAATGTTAGTATACCATCTTCTGAAGCTTTATCTTCGGATCCTTCC  
 TACAACAAAGAAAACACATTATTCATCTACCCAAAAGTCTAAGCATCACAAAGGTAGTGACCTGACAGT  
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 TCAAGAGCCTCAAGGATTGAAGATGCCGAGGAATTTCCCAACCTGGCAGTTGCATCTGAAAGAAGAGAC  
 AGAATAGAGACACCGAAATTTCAATCTAAGCAGCAGCCACAGGATAATTTTAAAAATAATGTAAAGAAGA  
 GCCAGCTTCCAGTGCAGTTGGACTTGGGGGCATGCTGACAGCCCTGGAGAAGAAGCAGCACTCTCAGCA  
 TGCAAAGCAGTCTCAAACCAAGTGGTAGTCTCAGTTGGAGCAGTCCAGTCTTTCCAAAGAATGTGCA  
 TCAGGGGAGAGAGGCCCGCATGAGTCAAATGAAGACCCCGACAATCCCTTGGACTCCAGCGCCCCAC  
 TGATGAAGAAAGGAAGCAGAGGGAGATCCCAAGGCCAAGAAGCCAACCTCACTGAAGAAGATTATTTT  
 GAAAGAACGGCAAGAGAGAAAGCAGCGTCTCAAGAAAATGCTGTGGGTCCAGCTTTTACCAGTGTGAC  
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 TGGACGAAGTGTCTCCACTCCTTCGGTTGAGGACAAGTCTGAAGAGCCACCAGGCACAGAGCTCCAGAG  
 GGACACAGAGGCCTCCACCTTGCTCCCAATCACACCACCTTCCCTAAGATCCACAGCCGAGATTCAGG  
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 GTTTCCAAGACCGTATGTACCAGAAAGATCCAGTCAAGGCCAAGACTAAACGTGACTTGTGTTGGGGTT  
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 CAGCCTACCCACACAGGGCCCCAGCTGCCTGCAGAAGATGGCCCCCAGCCCTGAAAGAAAAAGAGA  
 GCCACACTACATTGAAATCTGGAAAAACATCTGGAAGCATACAGTGGATGTACCCTGGAGCTAGAAGAA  
 TCCTTGGAGGCTTCAACCTCTCAATGATGAATTTGAATTA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG206346 representing NM\_024077  
 Red=Cloning site Green=Tags(s)

```
MASEGPREPESEGIKLSADV KPFVPRFAGLNVAWLESSEACVFPSSAATYYPFVQEPVTEQKIYTEDMA
FGASTFPPQYLSEITLHPYAYSPYTL DSTQNVYSVPGSQLYNQPSYRGFQTVKHRNENTCPLPQEMK
ALFKKTYDEKTYDQKFDSEADGTISSEIKSARGSHHLSIYAENSLKSDGYHKRTDRKSRIIAKNVS
TSKPEFEFTTLDPELQGAENMSEIQKQPKWGPVHSVSTDISLLREVVKPAAVLSKGEIVVKNPNESV
TANAATNSPCTREL SWTPMGYVVRQTLSTELSAAPKNVTSMINLKTIASSADPKNVSIPSEALSSDPS
YNKEKHI IHPTQKSKASQGS DLEQNEASRKNKKKKEKSTSKYEVLTVQEPRIEDAEEFNLAVASERRD
RIETPKFQSKQQPDNFKNNVKS QLPVQLDLGGMLTALEKKQHSQHAKQSSKPVVSVGAVPVL SKECA
SGERGRMSQMKT PHNPLDSSAPLMKKGKQREIPKAKKPTSLKKIILKERQERKQRLQENAVGPAFTSDD
TQDGESGDDQFPEQAE LSGPEGMD ELISTPSVEDKSEPPGTELQRDTEASHLAPNHTTFPKIHSRRFR
DYCSQMLSKEVDACVTDLLKEL VRFQDRMYQKDPVKAKTKRRLVLGLREVLKHLKLLKLCV IISP NCEK
IQSKGGLD DTLHTI IDYACEQNIPFVFALNRKALGRSLNKAVPVSVVGIFSYDGAQDQFHKMVELTVAAR
QAYKTML ENVQQLVGEPRPQAPP SLPTQGPSCPAEDGPPALKEKEEPHYIEIWKKHLEAYSGCTLELEE
SLEASTSQMMNLNL
```

TRTRPLE - GFP Tag - V

**Restriction Sites:** Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_024077

**ORF Size:** 2562 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\\_024077.3](#), [NP\\_076982.3](#)

**RefSeq Size:** 3477 bp

**RefSeq ORF:** 2565 bp

**Locus ID:** 79048

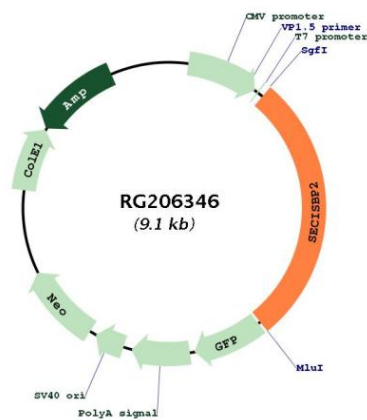
**UniProt ID:** [Q96T21](#)

**Cytogenetics:** 9q22.2

**Domains:** Ribosomal\_L7Ae

**Gene Summary:** The protein encoded by this gene is one of the essential components of the machinery involved in co-translational insertion of selenocysteine (Sec) into selenoproteins. Sec is encoded by the UGA codon, which normally signals translation termination. The recoding of UGA as Sec codon requires a Sec insertion sequence (SECIS) element; present in the 3' untranslated regions of eukaryotic selenoprotein mRNAs. This protein specifically binds to the SECIS element, which is stimulated by a Sec-specific translation elongation factor. Mutations in this gene have been associated with reduction in enzymatic activity of type II iodothyronine deiodinase (a selenoprotein) and abnormal thyroid hormone metabolism. Alternatively spliced transcript variants have been found for this gene. [provided by RefSeq, Aug 2017]

### Product images:



Circular map for RG206346