

## Product datasheet for **RG210006**

### Semenogelin II (SEMG2) (NM\_003008) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Semenogelin II (SEMG2) (NM_003008) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Semenogelin II
Synonyms:	SGII
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG210006 representing NM\_003008  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAAGTCCATCATCCTCTTTGCTTTCCCTGCTCCTTATCTTGGAGAAGCAAGCAGCTGTGATGGGAC  
 AAAAAGGTGGATCAAAGGCCAATTGCCAAGCGGATCTTCCCAATTTCCACATGGAAAAAGGGCCAGCA  
 CTATTTTGGACAAAAAGCCAACAACATACTAAATCCAAAGGCAGTTTTTCTATTCAACACACATATCAT  
 GTAGACATCAATGATCATGACTGGACCCGAAAAAGTCAGCAGTATGATTTGAATGCCCTACATAAGGCGA  
 CAAATCAAACAACACCTAGGTGGAAGTCAACAAGTCTCAATTATAAAACAAGAAGGCAGAGACCATGA  
 TAAATCAAAGGTCATTTTACATGATAGTTATACATCATAAAGGAGGCCAAGCTCATCATGGGACACAA  
 AATCCTTCTCAAGATCAGGGGAATAGCCCATCTGGAAAGGGATTATCCAGTCAATGTTCAAACACAGAAA  
 AAAGGCTATGGGTTTCATGGACTAAGTAAGAACAAGCTTCAGCCTCTGGTGCACAAAAAGGTAGAACACA  
 AGGTGGATCCCAAAGCAGTTATGTTCTCCAAACTGAAGAAGTCTAGTAAACAACAACAACGTGAGACT  
 AAAAAATTCATCAAATAAAGGCATTACCAAATGTGGTTGACGTGAGAGAGGAACATTCAAGTAAAC  
 TACAAACTTCACTCCATCCTGCACATCAAGACAGACTCCAACATGGACCCAAAGACATTTTTACTACCCA  
 AGATGAGCTCCTAGTATATAACAAGAAATCAACACCAGACAAAAATCTCAATCAAGATCAAGAGCATGGC  
 CGGAAGGCACATAAAATATCATACCCGCTTTCAGTACAGAAGAAAGACAACCTTCCCATGGAGAAAAGA  
 GTGTACAGAAAGATGTATCCAAAGGCAGCATTTCTATCCAAACTGAAGAGAAAATACATGGCAAGTCTCA  
 AAACAGGTAACAATTCATAGTCAAGATCAAGAGCATGGCCATAAGGAAAATAAAATATCATACCAATCT  
 TCAAGTACAGAAGAAAGACATCTCAACTGTGGAGAAAAGGCATCCAGAAAGGTGTATCCAAAGGCAGTA  
 TTTCGATCCAAACTGAAGAGCAAATACATGGCAAGTCTCAAACCAGGTAAAGAATTCCTAGTCAAGCTCA  
 AGAGTATGGCCATAAGGAAAATAAAATATCATACCAATCTTCGAGTACAGAAGAAAGACGTCTCAACAGT  
 GGAGAAAAGGATGTACAGAAAGGTGTATCCAAAGGCAGTATTTCTATCCAAACTGAAGAGAAAATACATG  
 GCAAGTCTCAAACCAGGTAACAATTCCTAGTCAAGATCAAGAGCATGGCCATAAGGAAAATAAAATGTC  
 ATACCAATCTTCAAGTACAGAAGAAAGACGACTCAACTATGGAGGAAAGACACGCAGAAAGATGTATCC  
 CAAAGCAGTATTTCTTTCCAAATGAAAAGCTAGTAGAAGGCAAGTCTCAATCCAGACACCAATCCTA  
 ATCAAGATCAATGGTCTGGCCAAAATGCAAAGGAAAGTCTGGTCAATCTGCAGATAGCAAACAAGACCT  
 ACTCAGTCATGAACAAAAAGGCAGATACAAACAGGAATCCAGTGAGTACATAATATTGTAATTACTGAG  
 CATGAGGTTGCCAAGATGATCATTGACACAACAATATAATGAAGACAGAAATCCAATATCTACA

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>RG210006 representing NM\_003008  
 Red=Cloning site Green=Tags(s)

MKSIILFVLSLLLILEKQAAVMGQKGGSKGQLPSGSSQFPHGKKGQHYFGQKQDQHTKSKGSFSIQHTYH  
 VDINDHDWTRKSQQYDLNALKATKSKQHLGGSQQLLNKQEGRDHDKSGHFHMIVIHKKGGQAHHGTTQ  
 NPSQDQGNPSGKGLSSQCSNTEKRLWVHGLSKEQASASGAQKGRQTGGSSQSYVLQTEELVYNKQQR  
 KNSHQKNGHYQNVVDVREEHSSKLTSLHPAHQDRLQHGPKDIFTTQDELLVYNKNQHQTKNLNQDQEHG  
 RKAHKISYPSSRTEERQLHHGEKSVQKDVSKGSISIQTEEKIHGKSNQVTIHSQDQEHGKHNKISYQS  
 SSTEERHLNCGEKGIQKGVSKGSISIQTEEQIHGKSNQVRIPSQAQEQYGHKHNKISYQSSSTEERLNS  
 GEKDVQKGVSKGSISIQTEEKIHGKSNQVTIPSQDQEHGKHNKMSYQSSSTEERLNYGGKSTQKDV  
 QSSISFQIEKLVEGKSQIQTPNPNDQWSGQNAKGGSGQSADSKQDLLSHEQKGRYKQESSESHNIVITE  
 HEVAQDDHLLTQQYNEDRNPIST

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_003008

**ORF Size:** 1746 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\\_003008.2](#), [NP\\_002999.1](#)

**RefSeq Size:** 1982 bp

**RefSeq ORF:** 1749 bp

**Locus ID:** 6407

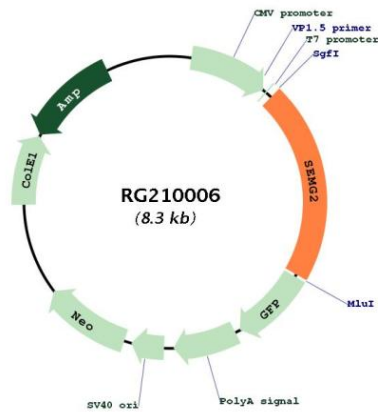
**UniProt ID:** [Q02383](#)

**Cytogenetics:** 20q13.12

**Protein Families:** Secreted Protein

**Gene Summary:** The secreted protein encoded by this gene is involved in the formation of a gel matrix that encases ejaculated spermatozoa. Proteolysis by the prostate-specific antigen (PSA) breaks down the gel matrix and allows the spermatozoa to move more freely. The encoded protein is found in lesser abundance than a similar semenogelin protein. An antibacterial activity has been found for a antimicrobial peptide isolated from this protein. The genes encoding these two semenogelin proteins are found in a cluster on chromosome 20. [provided by RefSeq, Jan 2015]

**Product images:**



Circular map for RG210006