

Product datasheet for **RG216046**

Semenogelin I (SEMG1) (NM_003007) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Semenogelin I (SEMG1) (NM_003007) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Semenogelin I
Synonyms:	CT103; dj172H20.2; SEMG; SGI
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG216046 representing NM_003007
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGCGATCGCC

ATGAAGCCCAACATCATCTTTGTACTTTCCCTGCTCCTCATCTTGGAGAAGCAAGCAGCTGTGATGGGAC
 AAAAAGGTGGATCAAAGGCCGATTACCAAGTGAATTTCCCAATTTCCACACGGACAAAAGGGCCAGCA
 CTATTCTGGACAAAAAGGCAAGCAAACTGAATCCAAAGCAGTTTTTCTATTCAATACACATATCAT
 GTAGATGCCAATGATCATGACCAGTCCCAGAAAAGTCAGCAATATGATTTGAATGCCCTACATAAGACGA
 CAAAATCACACGACATCTAGGTGGAAGTCAACAAGTCTCCATAATAACAAGAAGGCAGAGACCATGA
 TAAATCAAAGGTCATTTTACAGGGTAGTTATACACCATAAAGGAGGCAAGCTCATCGTGGGACACAA
 AATCCTTCTCAAGATCAGGGGAATAGCCCATCTGGAAAGGGAATATCCAGTCAATATTCAAACACAGAAG
 AAAGGCTGTGGTTCATGGACTAAGTAAGAACAACCTCCGTCCTGGTGCACAAAAAGGTAGAAAACA
 AGCGGGATCCCAAAGCAGTTATGTTCTCCAACTGAAGAGCTAGTAGCTAACAAACAACAACGTGAGACT
 AAAAAATCTCATCAAATAAAGGCATTACCAAATGTGGTTGAAGTGAGAGAGGAACATTCAAGTAAAG
 TACAAACCTCACTCTGTCTGCGCACCAGCAAACTCCAACATGGATCCAAAGACATTTTTTCTACCCA
 AGATGAGCTCCTAGTATATAACAAGATCAACACCAGACAAAAATCTCAATCAAGATCAACAGCATGGC
 CGAAAGGCAAATAAAATATCATACCAATCTTCAAGTACAGAAGAAAGCAGACTCCACTATGGAGAAAATG
 GTGTGCAGAAAGATGTATCCCAAAGCAGTATTTATAGCCAACTGAAGAGAAAGCACAGGGCAAGTCTCA
 AAAACAGATAACAATCCAGTCAAGAGCAAGAGCATAGCCAAAAGGCAAATAAAATATCATACCAATCT
 TCAAGTACGGAAGAAAGACGACTCCACTATGGAGAAAAATGGTGTGCAGAAAGATGTATCCCAACGCGTA
 TTTATAGCCAACTGAAAAGCTAGTAGCAGGCAAGTCTCAAATCCAGGCACCAAATCCTAAGCAAGAGCC
 ATGGCATGGTGAATAAGCAAAAGGAGAGTCTGGCCAATCTACAAATAGAGAACAAGACCTACTCAGTCAT
 GAACAAAAGGCAGACACCAACATGGATCTCATGGGGATTGGATATTGTAATTATAGAGCAGGAAGATG
 ACAGTGATCGTCAATTTGGCACACATCTTAAACACGACCAGAAACCATTATTTACA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG216046 representing NM_003007
 Red=Cloning site Green=Tags(s)

MKPNIIFVLSLLLILEKQAAVMGQKGGSKGRLPSEFSQFPHGQKQHYSGQKQTESKGSFSIQYTYH
 VDANDHDQSRKSQQYDLNALHKTTKSQRHLGGSQQLLNKQEGRDHDKSGHFHRRVVIHHKGGKAHRGTQ
 NPSQDQGNPSGKGISSQYSNTEERLWVHGLSKEQTSVSGAQKGRKQGGSSSYVLQTEELVANKQQRET
 KNSHQNKGHYQNVVEVREEHSSKVQTSVCPAHQDKLQHGSKDIFSTQDELLVYNKNQHQTKNLNQDQHG
 RKANKISYQSSSTEERRLHYGENGVQKDVQSQSIYSQTEEKAQKQKQITIPSQEQEHSQKANKISYQS
 SSTEERRLHYGENGVQKDVQSRSIYSQTEKL VAGKSQIQAPNPKQEPWHGENAKGESGQSTNREQDLLSH
 EQKGRHQHGSHGGLDIVIIEQEDDSRHLAQHLNDRNPLFT

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_003007

ORF Size: 1386 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_003007.5](#)

RefSeq Size: 1649 bp

RefSeq ORF: 1389 bp

Locus ID: 6406

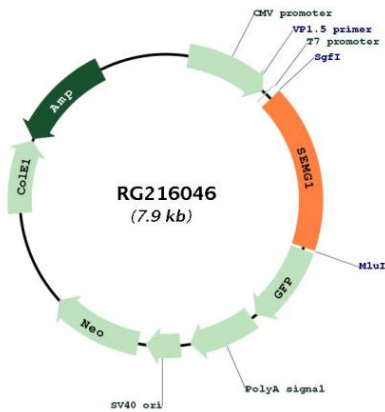
UniProt ID: [P04279](#)

Cytogenetics: 20q13.12

Protein Families: Secreted Protein

Gene Summary: The protein encoded by this gene is the predominant protein in semen. The encoded secreted protein is involved in the formation of a gel matrix that encases ejaculated spermatozoa. This preproprotein is proteolytically processed by the prostate-specific antigen (PSA) protease to generate multiple peptide products that exhibit distinct functions. One of these peptides, Sgl-29, is an antimicrobial peptide with antibacterial activity. This proteolysis process also breaks down the gel matrix and allows the spermatozoa to move more freely. This gene and another similar semenogelin gene are present in a gene cluster on chromosome 20. [provided by RefSeq, Feb 2016]

Product images:



Circular map for RG216046