

## **Product datasheet for SC303261**

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## Semenogelin I (SEMG1) (NM\_003007) Human Untagged Clone

**Product data:** 

**Product Type:** Expression Plasmids

**Product Name:** Semenogelin I (SEMG1) (NM\_003007) Human Untagged Clone

Tag: Tag Free

Symbol: Semenogelin I

Synonyms: CT103; dJ172H20.2; SEMG; SGI

Mammalian Cell

Selection:

None

Vector: pCMV6-XL5

E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM\_003007 edited

GTGATGGGACAAAAAGGTGGATCAAAAGGCCGATTACCAAGTGAATTTTCCCAATTTCCA GGCAGTTTTTCTATTCAATACACATATCATGTAGATGCCAATGATCATGACCAGTCCCGA AAAAGTCAGCAATATGATTTGAATGCCCTACATAAGACGACAAAATCACAACGACATCTA GGTGGAAGTCAACAACTGCTCCATAATAAACAAGAAGGCAGAGACCATGATAAATCAAAA GGTCATTTTCACAGGGTAGTTATACACCATAAAGGAGGCAAAGCTCATCGTGGGACACAA AATCCTTCTCAAGATCAGGGGAATAGCCCATCTGGAAAGGGAATATCCAGTCAATATTCA AACACAGAAGAAAGGCTGTGGGTTCATGGACTAAGTAAAGAACAAACTTCCGTCTCTGGT GCACAAAAAGGTAGAAAACAAGGCGGATCCCAAAGCAGTTATGTTCTCCAAACTGAAGAG CTAGTAGCTAACAACAACAACGTGAGACTAAAAATTCTCATCAAAATAAAGGGCATTAC CAAAATGTGGTTGAAGTGAGAGAGGAACATTCAAGTAAAGTACAAACCTCACTCTGTCCT GCGCACCAAGACAAACTCCAACATGGATCCAAAGACATTTTTTCTACCCAAGATGAGCTC CGAAAGGCAAATAAAATATCATACCAATCTTCAAGTACAGAAGAAGACGACTCCACTAT GGAGAAAATGGTGTGCAGAAAGATGTATCCCAAAGCAGTATTTATAGCCAAACTGAAGAG AAAGCACAGGGCAAGTCTCAAAAACAGATAACAATTCCCAGTCAAGAGCAAGAGCATAGC CAAAAGGCAAATAAAATATCATACCAATCTTCAAGTACGGAAGAAGACGACTCCACTAT GGAGAAAATGGTGTGCAGAAAGATGTATCCCAACGCAGTATTTATAGCCAAACTGAAAAG CTAGTAGCAGGCAAGTCTCAAATCCAGGCACCAAATCCTAAGCAAGAGCCATGGCATGGT GAAAATGCAAAAGGAGAGTCTGGCCAATCTACAAATAGAGAACAAGACCTACTCAGTCAT GAACAAAAAGGCAGACACCAACATGGATCTCATGGGGGATTGGATATTGTAATTATAGAG CAGGAAGATGACAGTGATCGTCATTTGGCACAACATCTTAACAACGACCGAAACCCATTA

TTTACATAA

**Restriction Sites:** Please inquire



## Semenogelin I (SEMG1) (NM\_003007) Human Untagged Clone - SC303261

**ACCN:** NM\_003007

**Insert Size:** 1400 bp

**OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a

point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative

RNA splicing form or single nucleotide polymorphism (SNP).

OTI Annotation: This TrueClone is provided through our Custom Cloning Process that includes sub-cloning

into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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:** <u>NM 003007.2</u>, <u>NP 002998.1</u>

 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, SgI-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]

Transcript Variant: This variant (1) represents the longer transcript and encodes the longer

isoform (a).