

Product datasheet for **SC117884**

Semaphorin 7a (SEMA7A) (NM_003612) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Semaphorin 7a (SEMA7A) (NM_003612) Human Untagged Clone
Tag:	Tag Free
Symbol:	Semaphorin 7a
Synonyms:	CD108; CDw108; H-SEMA-K1; H-Sema-L; JMH; SEMAK1; SEMAL
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC117884 sequence for NM_003612 edited (data generated by NextGen Sequencing)

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ATGACGCCTCCTCCGCCCGACGTGCCGCCCCAGCGCACCGCGCGCCCGCTCCCTGGC
CCGCCGGCTCGGTTGGGGCTTCCGCTGCGGCTGCGGCTGCTGCTGCTGCTGGGCGGCC
GCCGCCTCCGCCAGGGCCACCTAAGGAGCGGACCCCGCATCTTCGCGCTCTGAAAGGC
CATGTAGGGCAGGACCGGGTGGACTTTGGCCAGACTGAGCCGCACACGGTGCTTTTCCAC
GAGCCAGGCAGCTCCTCTGTGTGGGTGGGAGGACGTGGCAAGTCTACCTCTTTGACTTC
CCCGAGGGCAAGAACGCATCTGTGCGCACGGTGAATATCGGCTCCACAAAGGGTCTGT
CTGGATAAGCGGGACTGCGAGAACTACATCACTCTCTGGAGAGCGGAGTGAGGGGCTG
CTGGCCTGTGGACCAACGCCCGCACCCAGCTGCTGGAACCTGGTGAATGGCACTGTG
GTGCCACTTGGCAGATGAGAGGCTACGCCCTTTCAGCCCGACGAGAATCCCTGGTT
CTGTTTGAAGGGACGAGGTGATTCCACCATCCGGAAGCAGGAATACAATGGGAAGATC
CCTCGGTTCCGCCGATCCGGGGCAGAGTGAGCTGTACACCAGTGATACTGTCATGCAG
AACCCACAGTTTCAAAGCCACCATCGTGCACCAAGACCAGGCTTACGATGACAAGATC
TACTACTTCTTCCGAGAGACAATCCTGACAAGAATCCTGAGGCTCCTCTCAATGTGTCC
CGTGTGGCCAGTTGTGACAGGGGGACAGGGTGGGAAAAGTTCACTGTCAAGTCTCAAG
TGGAACACTTTTCTGAAAGCCATGCTGGTATGCAGTGATGCTGCCACCAACAAGAACTTC
AACAGGCTGCAAGACGTCTTCTGCTCCCTGACCCAGCGGCCAGTGAGGGACACCAGG
GTCTATGGTGTGTTTCTCCAACCCCTGGAATACTCAGCCGTCTGTGTGATTCCCTCGGT
GACATTGACAAGGTCTTCCGTACCTCCTCACTCAAGGGTACCCTCAAGCCTTCCCAAC
CCGCGGCTGGCAAGTGCCTCCCAGACCAGCAGCCGATACCCACAGAGACCTTCCAGGTG
GCTGACCGTACCAGAGGTGGCGCAGAGGGTGGAGCCATGGGGCTCTGAAGACGCCA
TTGTTCCACTCTAAATACCACTACCAGAAAGTGCCGTCCACCGCATGCAAGCCAGCCAC
GGGGAGACCTTTTATGTGCTTTACCTAACTACAGACAGGGGCACTATCCACAAGGTGGTG
GAACCGGGGAGCAGGAGCACAGCTTCCCTTCAACATCATGGAGATCCAGCCCTTCCGC
CGCGCGGCTGCCATCCAGACCATGTCGCTGGATGCTGAGCGGAGGAAGCTGTATGTGAGC
TCCAGTGGGAGGTGAGCCAGGTGCCCTGGACCTGTGTGAGGTCTATGGCGGGGCTGC
CACGGTTGCCTCATGTCCGAGACCCCTACTGCGGCTGGGACCAAGGCCGCTGCATCTCC
ATCTACAGCTCCGAACGGTCAGTGCTGCAATCCATTAATCCAGCCGAGCCACACAAGGAG
TGTCCTCAACCCAAACCAGACAAGGCCCACTGCAGAAGGTTTCCCTGGCCCCAAACTCT
CGTACTACCTGAGCTGCCCCATGGAATCCCGCCACGCCACTACTCATGGCGCCACAAG
GAGAACGTGGAGCAGAGCTGCGAACCTGGTACCAGAGCCCAACTGCATCCTGTTTCATC
GAGAACCTCACGGCGCAGCAGTACGGCCACTACTTCTGCGAGGCCAGGAGGGCTCCTAC
TTCCGCGAGGCTCAGCACTGGCAGCTGTGCCCGAGGACGGCATCATGGCCGAGCACCTG
CTGGGTGATGCCTGTGCCCTGGCCGCTCCCTCTGGCTGGGGGTGCTGCCACACTCACT
CTTGGCTTGTGGTCCACTAG

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Clone variation with respect to NM_003612.3

5' Read Nucleotide Sequence:	<p>>OriGene 5' read for NM_003612 unedited CCCCCCCCCGNNNNNNNNNNNNNCNNCNCNNNNCCCCNCCCCCCNNNGGTTTCATAATT GNATACAATCATATAGGCGGCCGCGAAATTCGCACGAGTCGCTCCCGGGGCCACGGGNAG ACGCCTCCTCCGCCCGGACGTGCCGCCCCAGCGCACCGCGCCCGCTCCCTGGCCCCG CCGGCTCGGTTGGGGCTCCGCTGCGGCTGCGGCTGCTGCTGCTCTGGGCGGCCGCC GCCTCCGCCCAGGGCCACCTAAGGAGCGGACCCCGCATCTTCGCCGTCTGAAAGGCCAT GTAGGGCAGGACCGGGTGGACTTTGGCCAGACTGAGCCGCACACGGTGTCTTTCCACGAG CCAGGCAGCTCCTCTGTGTGGGTGGGAGGACGTGGCAAGGTCTACCTCTTTGACTCCCC GAGGGCAAGAACGCATCTGTGCGCACGGTGAATATCGGCTCCACAAGGGGTCTGTCTG GATAAGCGGGACTGCGAGAACTACATCACTCTCCTGGAGAGGCGGAGTGAGGGGTGCTG GCCTGTGGCACCACGCCCGGCACCCAGCTGCTGGAACCTGGTGAATGGCACTGTGGT CCATTGGCGAGATGAGAGGCTACGCCCCCTTCAGCCCGACGAGAATCCCTGGTTCTG TTTGAAGGGGACGAGGTGATTCCACCATCCNGAAGCAGGAATACAATGGGAAGATCCCT NCGTTCGCCCGCATCCGNGCGAGAGTGAGCTGTACACCAGTGATACTGCATGCAGAAC CCACAGTTCATCAAAGCCACCATCGTGACCAAGACCCAGCTTNACGATGACAGATCTAC TACTTCTTNCGAGAGGACATCCTGACAAGAATCCTGAGGCCTCTCTCATGTGTCCCGTGT TGCCCCAGTGTGCCAGGGGGACCAGGTTGGGAAAGTCACTGTCTCAGTCTCCAGTGGGACAC TTTTCTGGAGAN</p>
3' Read Nucleotide Sequence:	<p>>OriGene 3' read for NM_003612 unedited CCGTGGCGCCATTGGGCGATGGTCAACTTGCCAGGGCCAGGAAAGCACTGGGGAAGGGT ACAGGGCTGCCACCCGGTCTGTTCAGGAAACAGCTATGACCGCGCCCAATCTAGAG TCGAGTTTTTTTTTTTTTTTTTTTAAAGCCTAACATAAAAAATAGAGCTTTTTCCGTCCTT CGTCCGGAAAGCAAAACATCCTTCAATAAACATGCAAGGCGGCTGTCTGTGGGACCCAGG ACCAGAGAGGGAGCTGCAGAGGACAGGGCTGGACAGAGGGTAGCCCTGGGTCTTCAAGAA CACCAGCCACCCAGCCATGAGAGAGGGAGGGGAAGGAGGCAATGTGGGTACCAAGAGTCC AGAAGGACTCAGGCCTCAGCCCCAGGGTCGAGATGGAGTCCCAGCTCTCTATCCAAACC CACTCCCCGACCCATGGGCTCTTGGGCTGGGAGCATCGCTGCATTTAGTCAAGTTTGAGG AGTCTGAAAAATATTTCCAGAAGATAAAGTCTTGGGTATCGATGCCCCAGCTTACAG TCGGTGCCCTCATTCTCAGCCCCACCATCCGTGCGCCACCTGGGGCCAGCAGCCGCC TCGGGCTGGACGTCTCCAGGCCTGGCATCCTCCACTGGGTATTCTGTCCCTGGAAGAA GTGGCAGGCAAGGAGCTCCCGGGCCAGCCGGCTCTGAGTGTGAGACGTTCTAGTGCCTG GGCTGCANAAGCCTGAGGCATGCCAGCCTCGGGAGGCCCTAGTGGACCAGCAAGCCAAG AGTGAGTGTGGGCAGCACCCCCAGCCAGAGGGAGGCGGCCAGGGCACAGGCATGACCCAG CAGGTGCTCGGCCATGATGCCGTCTCGGGCAGCAGCTGCCAGTGTGAGCCTCGCAGAA GTAAGAGCCCT</p>
Restriction Sites:	NotI-NotI
ACCN:	NM_003612
Insert Size:	2900 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).
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_003612.1](#), [NP_003603.1](#)

RefSeq Size: 2661 bp

RefSeq ORF: 2001 bp

Locus ID: 8482

UniProt ID: [O75326](#)

Cytogenetics: 15q24.1

Domains: Sema, PSI

Protein Pathways: Axon guidance

Gene Summary: This gene encodes a member of the semaphorin family of proteins. The encoded preproprotein is proteolytically processed to generate the mature glycosylphosphatidylinositol (GPI)-anchored membrane glycoprotein. The encoded protein is found on activated lymphocytes and erythrocytes and may be involved in immunomodulatory and neuronal processes. The encoded protein carries the John Milton Hagen (JMh) blood group antigens. Mutations in this gene may be associated with reduced bone mineral density (BMD). Alternative splicing results in multiple transcript variants, at least one of which encodes an isoform that is proteolytically processed. [provided by RefSeq, Feb 2016]

Transcript Variant: This variant (1) represents the longest transcript and encodes the longest isoform (1). Sequence Note: This RefSeq record represents the SEMA7A*001.1.1 allele.