

Product datasheet for RN208579

Sema5a (NM_001107659) Rat Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Sema5a (NM_001107659) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Sema5a
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>RN208579 representing NM_001107659 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAAGGGAGCCTGCATCCTTGCATGGCTGTTCTCAAGCCTGGGAGTGTGGAGACTTGCTCGGCCTGAGA
CCCAGGACCCTGCCAAGTGCCAGAGAGCTGAGCACCCCGTCGTCTCTACAAAGAAATTGGCCCCCTGGTT
ACGGGAATTCAGAGCCGAGAATGCTGTGGATTTCTCGAGGTTAACATTTGACCCAGGACAGAAAGAACTT
GTCGTAGGAGCAAGAACTATCTTTCAGACTACAGCTCGAGGATCTGTCTCTCATCCAGGCTGTGCACT
GGGAGTGTGATGAAGCCACGAAGAAGCCCTGTTACAGCAAGGGCAAATCGAAGGAGGAATGTCAGAACTA
CATACGAGTGCTCTTAGTGGGCGGGACCGGCTCTTACCTGTGGGACCAATGCCTTACACCCCGTCTGT
ACCATCCGCTCCTTAAGTAACCTGACTGAGATCCATGATCAGATCAGTGGCATGGCTCGATGTCCCTATA
GTCCCCAGCACAATTCTACAGCTCTACTCACTGCCAGTGGCGAGCTCTATGCTGCAACAGCCATGGATTT
CCCAGGGCGCGATCCAGCCATTTATCGAAGTCTGGGCACCTTACCTCCTCTTTCGAACTGCACAGTACAAC
TCCAAATGGCTCAATGAACCAAATTTGTGTCTTCTACGACATCGGGAACCTTCACTACTTCTTCTTCC
GAGAAAATGCCGTGGAACAGACTGTGGGAAGACTGTGTTCTCCAGGGCAGCCAGGGTCTGCAAGAATGA
CATTGGAGGACGATTTCTTCTGGAGGATACCTGGACTACCTTCATGAAGGCTCGCCTCAACTGCTCTCGG
CCTGGTGAGGTGCCGTTCTACTACAACGAGCTTCAAAGCACCTTCTTCTGCCGGAGCTGGATCTGATCT
ACGGCATCTTACCACCAATGTAACAGCATTGCTGCCTCTGCTGTCTGTCTTCAACCTGAGCGCCAT
CTCACAGGCCTTCAATGGACCCTTCAAGTACCAAGAGAACTCTCGCTCAGCCTGGCTGCCTTATCCCAAC
CCCAACCCCAATTTTCAGTGCAGCACCATGGACCAGGGCCTGTATGTAACCTGACGGAAAGAAACCTAC
AGGATGCTCAGAAGTTCATCCTGATGCATGAAGTGGTGCAGCCAGTGACCACAGTGCCTTCTTTCATGGA
AGACAACAGCCGTTTCTCCCATGTGGCTGTGATGTTGTGCAAGGCAGGGACACCCTTGTCCATATCATC
TATCTGGCCACAGATTATGGCACCATTAAGAAAGTGGGGCTCCGCTGAGTCAGAGCTCGGGCAGCTGTT
TGCTAGAAGAGATTGAGCTTTTTCCAGAGAGGAAGAGTGAAGCCATCAGGAGCCTAAAGATCCTCCACAG
CCAGAGTGCCTATTTGTGGGGCTACAGGAGCATGTGGTCAAGATCCCCCTGAAGAGATGCCAATTTGATC
CAAACACGTGGTGCCTGCATTGGTGTCTCAGGACCCTTACTGTGGCTGGGATGCGGTGATGAAGAAATGCA
CCAGCCTGGAGGAGCCTGAGCATGACCCAGTGGGATCAGAGCGTCCCCACCTGTCCGACCAGAAATCT



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CACCGTAGATGGGAGCTTTGGCCCGTGGTCTCCATGGACACCCTGTACTCACA CTGATGGCACTGCTGTG
 GGATCCTGCCTCTGCCGGTCCCAGTCTGTGACAGCCAGCTCCACAGTGTGGCGGTGGCAGTGTGAGG
 GCCCTAGAATGGAGATCACCAACTGTTCCAGGAATGGAGGCTGGACTCCCTGGACCTCCTGGTCTCCCTG
 CAGCACCATTGTGGCATTGGCTTCCAGGTGCGGCAGCGCTCCTGCAGCAACCCTACGCCAGGCATGGA
 GGGCGTGTGCGTGGGCCAGAACAGGGAGGAAAGATACTGCAATGAACATTTACTCTGCCACCACACG
 TGTTCTGGACAGGCTGGGACCTTGGGAACGCTGCACAGCCAGTGCAGGGGTGGCATTCAAGCTCGCCG
 TAGGACCTGTGAAAATGGCCCTGACTGTGCAGGATGCAATGTGGAATACCAGCCTGTAAACACCAATGCA
 TGCCACAGATTGAAGAAGACCACACCATGGACCCCTGGACACCTGTCAACATCTCTGACAATGGGGGCC
 ACTATGAGCAGCGGTTCCGCTACACCTGTAAAGCTCGCCTGCCAGATCCAACTTATTGGAAGTAGGAAG
 ACAAAGGATAGAAATGCGGTACTGTTCTAGTGATGGGACCAGTGGCTGCTCCACAGATGGACTTTCTGGA
 GACTTTCTAAGAGCTGGGAGATACTCTGCCATACAGTCAATGGGGCATGGTCAGCCTGGACTTCTGGT
 CACAGTGCAGCAGAGACTGCAGCAGGGCATTGAAAACAGGAAGCGTGTGCAACAACCCAGAGCCCAA
 GTATGGAGGTATGCCATGCCTTGGTCCATCACTGGAGTTCAGGAATGCAACATTTACCCTGTCCAGTG
 GATGGTGTGGTCTTGGTGGTATCCTGGTCTAAATGCTCAGCAACTTGTGGGGTGGACTACATGA
 GAACCCGTTCTGTACGAATCCAGCCCCAGCATACGGAGGGGACATCTGCCTGGGACTGCACACGGAAGA
 GGCCCTCTGTAACACACAGACCTGCCCAGAGAACTGGTCAGAGTGGTCAGAGTGGTCTGTGTGTGATGCA
 TCTGGTACCCAGGTCCGTA CTCCGAGTGCATCCTTCTGTTTCTGTGGGAGCCAGTGTCTGGAATA
 CTACAGAGAGCCGGCCTTGTGTATTTGACTCTAATTTCCATCCCAGAAGTGTCTGTGGCAAGATCCAGCAG
 CGTAGAAGAGAAAAGGTGTGGAGAGTTCACATGTTCCACATGATGGCTGTGGGACTTAGCAGTTCATC
 CTCGGTGCCTCCTTACACTGCTGTCTACACCTACTGCCAGCGGTACCAGCAGCAGTCCCATGATGCAA
 CTGTATCCATCCTGTTTCTCCCGCCGCTCAACAGCAGCATAACTAACCACATCAACAACTGGATAA
 ATACGATTCGGTGGAGCCATCAAGGCATTTAACAAAAACAACCTTGATCCTAGAGGAGAGAAACAATAC
 TTCAACCCACATCTACTGGGAAGACCTACTCCAACGCCTACTTTACAGATCTCAACAATTATGATGAAT
 ACTAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites:

Sgfl-MluI

ACCN:

NM_001107659

Insert Size:

3225 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_001107659.2, NP_001101129.1

RefSeq Size:

10501 bp

RefSeq ORF: 3225 bp

Locus ID: 310207

UniProt ID: [D3ZTD8](#)

Cytogenetics: 2q22

Gene Summary: Bifunctional axonal guidance cue regulated by sulfated proteoglycans; attractive effects result from interactions with heparan sulfate proteoglycans (HSPGs), while the inhibitory effects depend on interactions with chondroitin sulfate proteoglycans (CSPGs). Ligand for receptor PLXNB3. In glioma cells, SEMA5A stimulation of PLXNB3 results in the disassembly of F-actin stress fibers, disruption of focal adhesions and cellular collapse as well as inhibition of cell migration and invasion through ARHGDI A-mediated inactivation of RAC1. May promote angiogenesis by increasing endothelial cell proliferation and migration and inhibiting apoptosis.[UniProtKB/Swiss-Prot Function]