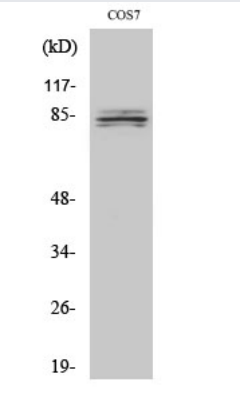
SEMA4A Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	SEMA4A, Polyclonal Antibody
Full Product Name	SEMA4A Polyclonal Antibody
Product Gene Name	anti-SEMA4A antibody
Product Synonym Names	SEMA4A; SEMAB; SEMB; Semaphorin-4A; Semaphorin-B; Sema B
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human, Mouse, Rat, Monkey
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 2 weeks. For long term storage store at -20 degree C in small aliquots to prevent freeze-thaw cycles.
Molecular Weight	83,574 Da
Chromosome Location	Chromosome: 1; NC_000001.10 (156119735..156147542). Location: 1q22
OMIM	607292
3D Structure	ModBase 3D Structure for Q9H3S1
Applications Tested/Suitable for anti-SEMA4A antibody	Western Blot (WB), Immunohistochemistry-Paraffin (IHC-P), Immunofluorescence (IF)
Related Product Information for anti-SEMA4A antibody	Cell surface receptor for PLXNB1, PLXNB2, PLXNB3 and PLXND1 that plays an important role in cell-cell signaling (By similarity). Regulates glutamatergic and GABAergic synapse development (By similarity). Promotes the development of inhibitory synapses in a PLXNB1-dependent manner and promotes the development of excitatory synapses in a PLXNB2-dependent manner (By similarity). Plays a role in priming antigen-specific T-cells, promotes differentiation of Th1 T-helper cells, and thereby contributes to adaptive immunity (By similarity). Promotes phosphorylation of TIMD2 (By similarity). Inhibits angiogenesis (By similarity). Promotes axon growth cone collapse (By similarity). Inhibits axonal extension by providing local signals to specify territories inaccessible for growing axons (By similarity).
Other Notes	Small volumes of anti-SEMA4A antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for SEMA4A purchase	MBS9245178 is an antibody targeting SEMA4A. Also known as SEMA4A Polyclonal Antibody. Reactive in Human, Mouse, Rat, Monkey. Host: Rabbit.



Wester Blot (WB) of anti-SEMA4A antibody
Dilution: Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300.
Immunofluorescence: 1/200 - 1/1000. ELISA: 1/20000. Not yet tested in other applications.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for SEMA4A. It may not necessarily be applicable to this product.

NCBI GI #	300863072
NCBI GeneID	64218
NCBI Accession #	NP_001180229.1
UniProt Primary Accession #	Q9H3S1
UniProt Secondary Accession #	Q5TCI5; Q5TCJ6; Q8WUA9; B2RDH8; B3KR76
UniProt Related Accession #	Q9H3S1
GenBank Nucleotide #	NM_001193300.1
NCBI Official Full Name	semaphorin-4A isoform 1
NCBI Official Synonym Full Names	sema domain, immunoglobulin domain (Ig), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 4A
NCBI Official Symbol	SEMA4A
NCBI Official Synonym Symbols	RP35; SEMB; SEMAB; CORD10; RP11-54H19.2
UniProt Protein Name	Semaphorin-4A
UniProt Synonym Protein Names	Semaphorin-B
Protein Family	Semaphorin
UniProt Gene Name	SEMA4A
UniProt Synonym Gene Names	SEMAB; SEMB; Sema B
UniProt Entry Name	SEM4A_HUMAN
NCBI Protein Information	semaphorin-4A; sema B; semaphorin-B
NCBI Summary for SEMA4A	This gene encodes a member of the semaphorin family of soluble and transmembrane proteins. Semaphorins are involved in numerous functions, including axon guidance, morphogenesis, carcinogenesis, and immunomodulation. The encoded protein is a single-pass type I membrane protein containing an immunoglobulin-like C2-type domain, a PSI domain and a sema domain. It inhibits axonal extension by providing local signals to specify territories inaccessible for growing axons. It is an activator of T-cell-mediated immunity and suppresses vascular endothelial growth factor (VEGF)-mediated endothelial cell migration and proliferation in vitro and angiogenesis in vivo. Mutations in this gene are associated with retinal degenerative diseases including retinitis pigmentosa type 35 (RP35) and cone-rod dystrophy type 10 (CORD10). Multiple alternatively spliced transcript variants encoding different isoforms have been identified.[provided by RefSeq, Sep 2010]

UniProt Comments for SEMA4A	SEMA4A: a single-pass type I membrane protein that inhibits axonal extension by providing local signals to specify territories inaccessible for growing axons. Defects in SEMA4A are the cause of retinitis pigmentosa type 35 and cone-rod dystrophy type 10. Protein type: Membrane protein, integral Chromosomal Location of Human Ortholog: 1q22 Cellular Component: integral to membrane; plasma membrane Molecular Function: protein binding; receptor activity Biological Process: regulation of cell shape; axon guidance; negative regulation of angiogenesis; T-helper 1 cell differentiation; angiogenesis Disease: Retinitis Pigmentosa 35; Cone-rod Dystrophy 10
Research Articles on SEMA4A	**1.** Sema4A plays an inhibitory role in T helper (Th)2-type allergic diseases, such as allergic asthma, in a fraction of Sema4a-deficient transgenic mice.
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