

Summary

Production Name	SEMA4A Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	IHC, WB, ELISA
Reactivity	Human, Mouse, Rat, Monkey

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	SEMA4A
Alternative Names	SEMA4A; SEMAB; SEMB; Semaphorin-4A; Semaphorin-B; Sema B
Gene ID	64218.0
SwissProt ID	Q9H3S1. The antiserum was produced against synthesized peptide derived from human SEMA4A. AA range: 501-550

Application

Dilution Ratio	WB 1:500 - 1:2000. IHC 1:100 - 1:300. . ELISA: 1:20000. Not yet tested in other applications.
Molecular Weight	84kD

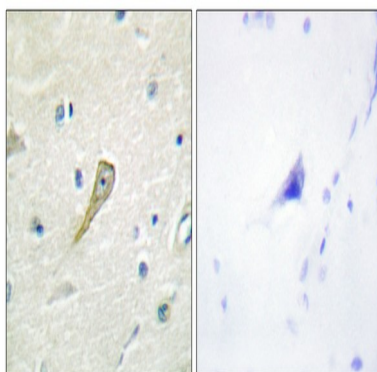
Background

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. Defects in SEMA4A are the cause of cone-rod dystrophy type 10 (CORD10) [MIM:610283]. CORDs are inherited retinal dystrophies belonging to the group of pigmentary retinopathies. CORDs are characterized by retinal pigment deposits visible on fundus examination, predominantly in the macular region, and initial loss of cone photoreceptors followed by rod degeneration. This leads to decreased visual acuity and sensitivity in the central visual field, followed by loss of peripheral vision. Severe loss of vision occurs earlier than in retinitis pigmentosa. Defects in SEMA4A are the cause of retinitis pigmentosa type 35 (RP35) [MIM:610282]. RP leads to degeneration of retinal photoreceptor cells. Patients typically have night vision blindness and loss of midperipheral visual field. As their condition progresses, they lose their far peripheral visual field and eventually central vision as well. Inhibits axonal extension by providing local signals to specify territories inaccessible for growing axons. Belongs to the semaphorin family. Contains 1 Ig-like C2-type (immunoglobulin-like) domain. Contains 1 PSI domain. Contains 1 Sema domain.

Research Area

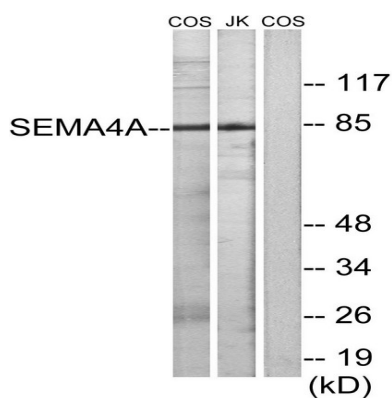
Axon guidance;

Image Data

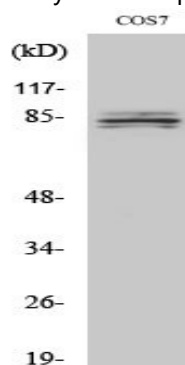


Immunohistochemistry analysis of paraffin-embedded human brain tissue, using SEMA4A Antibody. The picture on the right is blocked with the synthesized peptide.

Product Name: SEMA4A Rabbit Polyclonal Antibody
Catalog #: APRab17717



Western blot analysis of lysates from COS7 and Jurkat cells, using SEMA4A Antibody. The lane on the right is blocked with the synthesized peptide.



Western Blot analysis of various cells using SEMA4A Polyclonal Antibody

Note

For research use only.