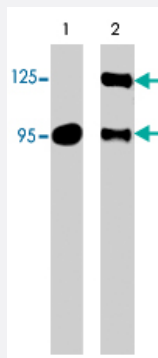


SEMA3A polyclonal antibody

Catalog # PAB7888

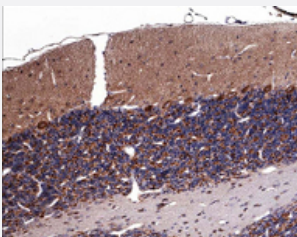
Size 100 uL

Applications



Western Blot

Western blots of neonatal rat brain (lane 1) and human recombinant SEMA3A chimera (95/125 kDa) (lane 2). Blots were probed with SEMA3A polyclonal antibody (Cat # PAB7888). The antibodies recognize both the 95 kDa and 125 kDa forms of the recombinant SEMA3A.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Formalin fixed, citric acid treated paraffin sections of adult rat cerebellum. Sections were probed with SEMA3A polyclonal antibody (Cat # PAB7888) then anti-Rabbit HRP before detection using DAB. (Images provided by Carl Hobbs and Dr. Pat Doherty at Wolfson Centre for Age-Related Diseases, King's College London).

Specification

Product Description	Rabbit polyclonal antibody raised against synthetic peptide of SEMA3A.
Immunogen	A synthetic peptide corresponding to internal region of human SEMA3A.
Host	Rabbit
Reactivity	Human, Mouse, Rat
Specificity	The sequence used is highly conserved in rat and mouse Sema3A, and has low homology to other semaphorin family members.
Form	Liquid

Quality Control Testing	Antibody Reactive Against Synthetic Peptide.
Recommend Usage	ELISA (1:2000) Western Blot (1:500) The optimal working dilution should be determined by the end user.
Storage Buffer	In PBS (50% glycerol, 1 mg/mL BSA, 0.05% sodium azide)
Storage Instruction	Store at -20°C. Aliquot to avoid repeated freezing and thawing.
Note	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Applications

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- Enzyme-linked Immunoabsorbent Assay

Gene Info — SEMA3A

Entrez GeneID	10371
Gene Name	SEMA3A
Gene Alias	Hsema-I, Hsema-III, MGC133243, SEMA1, SEMAD, SEMAIII, SEMAL, SemD, coll-1
Gene Description	sema domain, immunoglobulin domain (Ig), short basic domain, secreted, (semaphorin) 3A
Omim ID	603961
Gene Ontology	Hyperlink

Gene Summary

This gene is a member of the semaphorin family and encodes a protein with an Ig-like C2-type (immunoglobulin-like) domain, a PSI domain and a Sema domain. This secreted protein can function as either a chemorepulsive agent, inhibiting axonal outgrowth, or as a chemoattractive agent, stimulating the growth of apical dendrites. In both cases, the protein is vital for normal neuronal pattern development. Increased expression of this protein is associated with schizophrenia and is seen in a variety of human tumor cell lines. Also, aberrant release of this protein is associated with the progression of Alzheimer's disease. [provided by RefSeq]

Other Designations

collapsin 1|semaphorin 3A|semaphorin D|semaphorin III|semaphorin L|semaphorin-like

Publication Reference

- [PlexinA1 is crucial for the midline crossing of callosal axons during corpus callosum development in BALB/cAJ mice.](#)

Hossain MM, Tsuzuki T, Sakakibara K, Imaizumi F, Ikegaya A, Inagaki M, Takahashi I, Ito T, Takamatsu H, Kumanogoh A, Negishi T, Yukawa K.

PLoS One 2019 Aug; 14(8):e0221440.

Application: IF, IHC-Fr, Mouse, Mouse brains

- [Autoregulation of Osteocyte Sema3A Orchestrates Estrogen Action and Counteracts Bone Aging.](#)

Hayashi M, Nakashima T, Yoshimura N, Okamoto K, Tanaka S, Takayanagi H.

Cell Metabolism 2019 Mar; 29(3):627.

Application: WB, Mouse, IDG-SW3 cells

- [Differential expression of sema3A and sema7A in a murine model of multiple sclerosis: Implications for a therapeutic design.](#)

Gutiérrez-Franco A, Costa C, Eixarch H, Castillo M, Medina-Rodríguez EM, Bribián A, de Castro F, Montalban X, Espejo C.

Clinical Immunology 2016 Feb; 163:22.

Application: IS, Mouse, Spinal cord

- [Loss of MiR-223 duplex \(5p and 3p\) aggravates myocardial depression and mortality in polymicrobial sepsis.](#)

Wang X, Huang W, Yang Y, Wang Y, Peng T, Chang J, Caldwell CC, Zingarelli B, Fan GC.

Biochimica et Biophysica Acta 2014 May; 1842(5):701.

Application: WB-Ti, Mouse, Heart

- [Expression of semaphorin 3A in the rat corneal epithelium during wound healing.](#)

Morishige N, Ko JA, Morita Y, Nishida T.

Biochemical and Biophysical Research Communications 2010 May; 395(4):451.

Application: IHC-Fr, WB-Ti, Rat, Rat eyes

- [Targeting sensory axon regeneration in adult spinal cord.](#)

Tang XQ, Heron P, Mashburn C, Smith GM.

Journal of Neuroscience 2007 May; 27(22):6068.

Application: IF, IHC-Fr, WB, Rat, Rat spinal cord

- [Emerging roles for semaphorins in neural regeneration.](#)

Pasterkamp RJ, Verhaagen J.

Brain Research. Brain Research Reviews 2001 Mar; 35(1):36.

- [Collapsin: a protein in brain that induces the collapse and paralysis of neuronal growth cones.](#)

Luo Y, Raible D, Raper JA.

Cell 1993 Oct; 75(2):217.

Pathway

- [Axon guidance](#)

Disease

- [Alzheimer Disease](#)
- [Genetic Predisposition to Disease](#)
- [Memory](#)
- [Schizophrenia](#)
- [Schizophrenic Psychology](#)
- [Tobacco Use Disorder](#)