

Rabbit SEMA4A Polyclonal Antibody | anti-SEMA4A antibody

Anti-SEMA4A Antibody Picoband

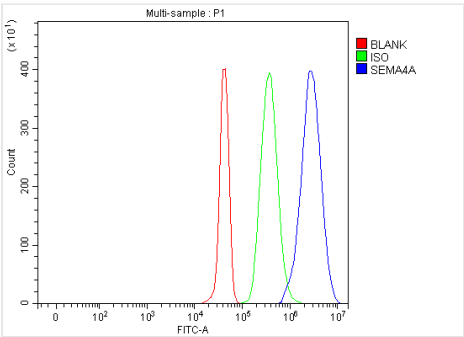
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA127404	Rabbit	Human, Mouse, Rat	ELISA, Flow Cytometry, Functional Assay, Western Blot

PRODUCT SYNONYMS

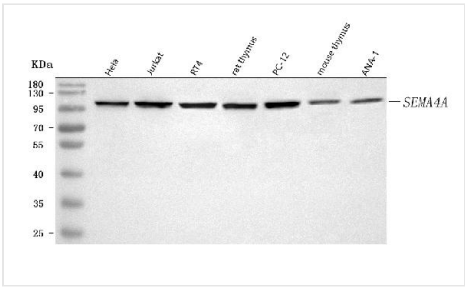
SEMA4A; Polyclonal Antibody; Anti-SEMA4A Antibody Picoband; AP-2 complex subunit beta; PR/SET domain 5; PR domain zinc finger protein 5; PR domain-containing protein 5; PRDM5; PFM2; anti-SEMA4A antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Widely expressed with highest levels in colon and ovary. Tends to be silenced in breast, colorectal, gastric and liver cancer tissues.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
Applicable Applications for anti-SEMA4A antibody	ELISA, FCM/FACS (Flow Cytometry), WB (Western Blot)
Immunogen	E coli-derived human SEMA4A recombinant protein (Position: R81-N754).
Subcellular Localization	Nucleus
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500ug/ml.
Cross Reactivity	No cross-reactivity with other proteins.
Protein Function	Sequence-specific DNA-binding transcription factor. Represses transcription at least in part by recruitment of the histone methyltransferase EHMT2/G9A and histone deacetylases such as HDAC1. Regulates hematopoiesis-associated protein-coding and microRNA (miRNA) genes. May regulate the expression of proteins involved in extracellular matrix development and maintenance, including fibrillar collagens, such as COL4A1 and COL11A1, connective tissue components, such as HAPLN1, and molecules regulating cell migration and adhesion, including EDIL3 and TGFB2. May cause G2/M arrest and apoptosis in cancer cells.
Preparation and Storage	At -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months.Avoid repeated freezing and thawing.



FCM/FACS (Flow Cytometry)
Figure 2. Flow Cytometry analysis of JK cells using anti-SEMA4A antibody (AAA127404). Overlay histogram showing JK cells stained with AAA127404 (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-SEMA4A Antibody (AAA127404, 1ug/1x10⁶ cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-rabbit IgG was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



WB (Western Blot)
Figure 1. Western blot analysis of SEMA4A using anti-SEMA4A antibody (AAA127404). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel)/90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human Hela whole cell lysates, Lane 2: human Jurkat whole cell lysates, Lane 3: human RT4 whole cell lysates, Lane 4: rat thymus tissue lysates, Lane 5: rat PC-12 whole cell lysates, Lane 6: mouse thymus tissue lysates, Lane 7: mouse ANA-1 tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-SEMA4A antigen affinity purified polyclonal antibody (#AAA127404) at 0.5ug/mL overnight at 4 degree C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for SEMA4A at approximately 105 kDa. The expected band size for SEMA4A is at 84,105 kDa.

ADDITIONAL INFORMATION

Related Product Information for anti-SEMA4A antibody	The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Product Categories/Family for anti-SEMA4A antibody	Primary Antibodies; Cell Adhesion Proteins; ECM Proteins; Neuroscience
References	1. Abid, A., Ismail, M., Mehdi, S. Q., Khaliq, S. Identification of novel mutations in the SEMA4A gene associated with retinal degenerative diseases. (Letter) J. Med. Genet. 43: 378-381, 2006. 2. Bryant, L., Lozynska, O., Han, G., Morgan, J. I. W., Gai, X., Maguire, A. M., Aleman, T., Bennett, J. On variants and disease-causing mutations: Case studies of a SEMA4A variant identified in inherited blindness. Ophthalmic Genet. 39: 144-146, 2018. 3. Delgoffe, G. M., Woo, S.-R., Turnis, M. E., Gravano, D. M., Guy, C., Overacre, A. E., Bettini, M. L., Vogel, P., Finkelstein, D., Bonnevier, J., Workman, C. J., Vignali, D. A. A. Stability and function of regulatory T cells is maintained by a neuropilin-1-semaphorin-4a axis. Nature 501: 252-256, 2013.

NCBI AND UNIPROT INFORMATION

NCBI GI #	300863072
NCBI GeneID	64218
NCBI Accession #	NP_001180229.1
NCBI GenBank Nucleotide #	NM_001193300.1
UniProt Accession #	Q9H3S1; Q5TCI5; Q5TCJ6; Q8WUA9; B2RDH8; B3KR76
Molecular Weight	83,574 Da
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
NCBI Protein Information	semaphorin-4A; sema B; semaphorin-B
UniProt Protein Name	Semaphorin-4A
UniProt Gene Name	SEMA4A
UniProt Synonym Gene Names	SEMAB; SEMB; Sema B
UniProt Entry Name	SEM4A_HUMAN

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/sema4a-antibody-flow-cytometry-western-blot-elisa/127404>