


Product datasheet

Anti-SEMA4A antibody ab70178

3 References 2 Images

Overview

Product name	Anti-SEMA4A antibody
Description	Rabbit polyclonal to SEMA4A
Host species	Rabbit
Specificity	This antibody detects endogenous levels of total SEMA4A protein.
Tested applications	Suitable for: WB, IHC-P
Species reactivity	Reacts with: Human Predicted to work with: Mouse, Rat 
Immunogen	A synthesized peptide derived from the internal region of human SEMA4A.
General notes	<p>Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.</p> <p>Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.</p> <p>We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.</p> <p>In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.</p> <p>We are also updating the applications & species that this product has been “predicted to work with,” however this information is not covered by our Abpromise guarantee.</p> <p>Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.</p> <p>Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, as well as customer reviews and Q&As.</p>

Properties

Form	Liquid
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Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: 0.87% Sodium chloride, 50% Glycerol (glycerin, glycerine), PBS Without Mg ²⁺ and Ca ²⁺
Purity	Immunogen affinity purified
Purification notes	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Clonality	Polyclonal
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab70178** in the following tested applications.

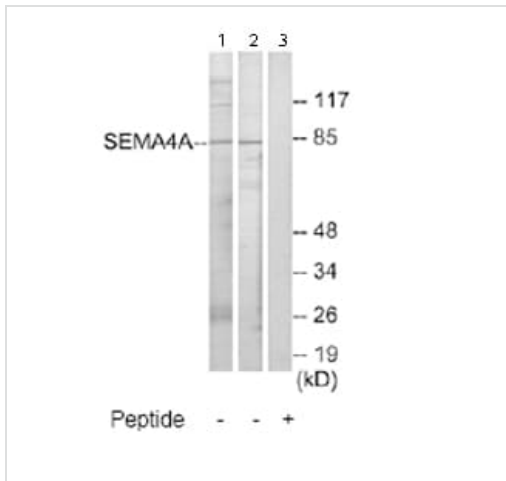
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/500 - 1/1000. Predicted molecular weight: 84 kDa.
IHC-P		1/50 - 1/100.

Target

Function	Inhibits axonal extension by providing local signals to specify territories inaccessible for growing axons.
Involvement in disease	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. 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.
Sequence similarities	Belongs to the semaphorin family. Contains 1 Ig-like C2-type (immunoglobulin-like) domain. Contains 1 PSI domain. Contains 1 Sema domain.
Cellular localization	Membrane.

Images



Western blot - Anti-SEMA4A antibody (ab70178)

All lanes : Anti-SEMA4A antibody (ab70178) at 1/500 dilution

Lane 1 : Extracts from COS-7 cells

Lane 2 : Extracts from Jurkat cells

Lane 3 : Extracts from COS-7 cells with immunizing peptide at 10 µg

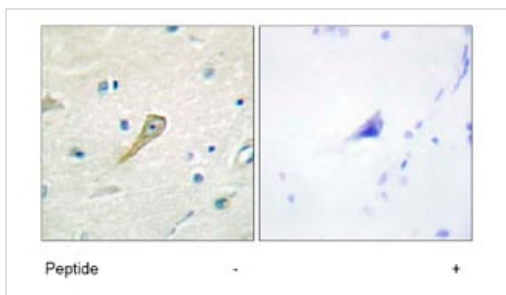
Lysates/proteins at 30 µg per lane.

Predicted band size: 84 kDa

Observed band size: 84 kDa

Additional bands at: 117 kDa, 26 kDa. We are unsure as to the identity of these extra bands.

One other band detected greater than 117 kDa.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SEMA4A antibody (ab70178)

Immunohistochemistry analysis of paraffin-embedded human brain tissue using ab70178 at 1/50-1/100 dilution.

Left image un-treated.

Right image treated with immunizing peptide.

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