

Product datasheet

Anti-Semaphorin 7a antibody [EPR22644-316] ab263900

Recombinant RabMAb

6 Images

Overview

<b>Product name</b>	Anti-Semaphorin 7a antibody [EPR22644-316]
<b>Description</b>	Rabbit monoclonal [EPR22644-316] to Semaphorin 7a
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> ICC/IF, IHC-P, Flow Cyt <b>Unsuitable for:</b> WB
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	IHC-P: Human cerebral cortex, tonsil and liver tissues. ICC/IF: Human PBMC cells treated with phytohaemagglutinin. Flow Cyt: Human peripheral blood mononuclear cells treated with phytohaemagglutinin.
<b>General notes</b>	This product is a recombinant monoclonal antibody, which offers several advantages including: <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> For more information <a href="#">see here</a> .  Our RabMAb <sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a> .

Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR22644-316

Isotype

IgG

## Applications

### The Abpromise guarantee

Our [Abpromise guarantee](#) covers the use of ab263900 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
ICC/IF		1/250.
IHC-P		1/100. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
Flow Cyt		1/500.

### Application notes

Is unsuitable for WB.

## Target

### Function

Plays an important role in integrin-mediated signaling and functions both in regulating cell migration and immune responses. Promotes formation of focal adhesion complexes, activation of the protein kinase PTK2/FAK1 and subsequent phosphorylation of MAPK1 and MAPK3. Promotes production of proinflammatory cytokines by monocytes and macrophages. Plays an important role in modulating inflammation and T-cell-mediated immune responses. Promotes axon growth in the embryonic olfactory bulb. Promotes attachment, spreading and dendrite outgrowth in melanocytes.

### Tissue specificity

Detected in skin keratinocytes and on endothelial cells from skin blood vessels (at protein level). Expressed in fibroblasts, keratinocytes, melanocytes, placenta, testis, ovary, spleen, brain, spinal chord, lung, heart, adrenal gland, lymph nodes, thymus, intestine and kidney.

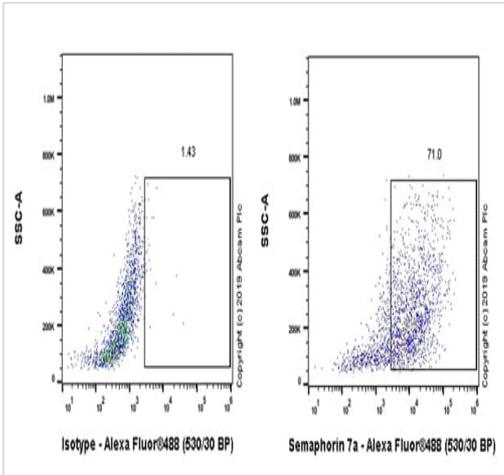
### Sequence similarities

Belongs to the semaphorin family.  
Contains 1 Ig-like C2-type (immunoglobulin-like) domain.  
Contains 1 PSI domain.  
Contains 1 Sema domain.

### Cellular localization

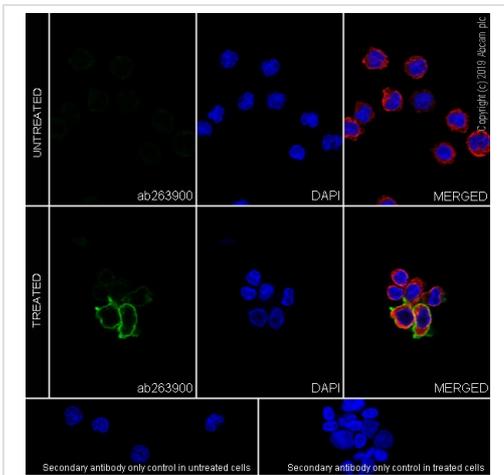
Cell membrane. Detected in a punctate pattern on the cell membrane of basal and supra-basal skin keratinocytes.

## Images



Flow Cytometry - Anti-Semaphorin 7a antibody  
[EPR22644-316] (ab263900)

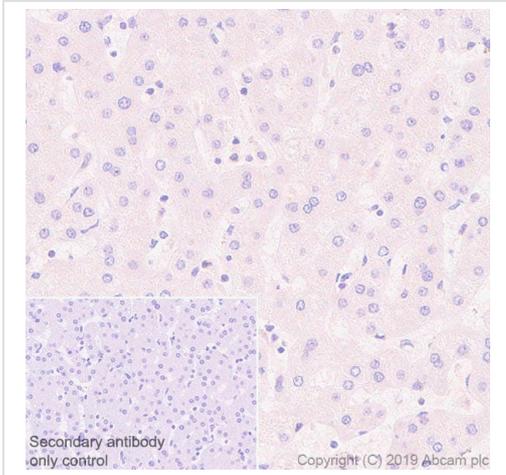
Flow cytometric analysis of human peripheral blood mononuclear cell (PBMC) treated with 10µg/ml phytohemagglutinin (PHA) for 2 days labeling Semaphorin 7a with ab263900 at 1\500 compared with a Rabbit monoclonal IgG (ab172730) / Left isotype control and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (Blue). Goat anti rabbit IgG (Alexa Fluor<sup>®</sup> 488, ab150077) at 1/2000 was used as the secondary antibody. Gated on viable cells.



Immunocytochemistry/ Immunofluorescence - Anti-Semaphorin 7a antibody [EPR22644-316]  
(ab263900)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized Human PBMC (human primary peripheral blood mononuclear cell) cells labeling Semaphorin 7a with ab263900 at 1/250 dilution, followed by ab150077 AlexaFluor<sup>®</sup>488 Goat anti-Rabbit secondary antibody at 1/1000 dilution (Green). Confocal image showing membranous staining in human PBMC cells treated with phytohaemagglutinin (10 µg/ml) for 2 days. ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor<sup>®</sup> 594) was used to counterstain tubulin at 1/200 dilution (Red). The nuclear counterstain was DAPI (Blue).

Secondary antibody only control: ab150077 AlexaFluor<sup>®</sup>488 Goat anti-Rabbit secondary at 1/1000 dilution.

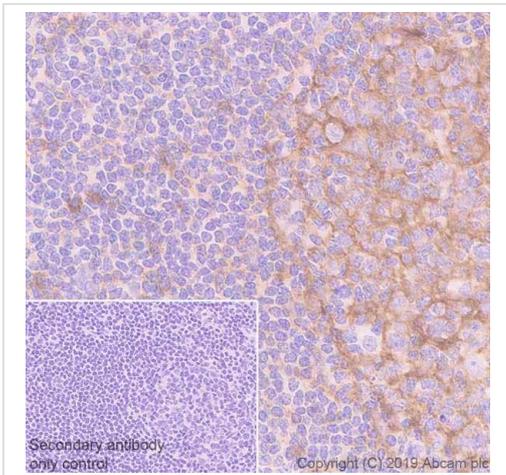


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Semaphorin 7a antibody [EPR22644-316] (ab263900)

Immunohistochemical analysis of paraffin-embedded human liver tissue labeling Semaphorin 7a with ab263900 at 1/100 followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). **Low expression tissue:** Faint cytoplasmic staining on human liver. The section was incubated with ab263900 for 30 mins at RT. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with hematoxylin.

Secondary antibody only control: Ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins.

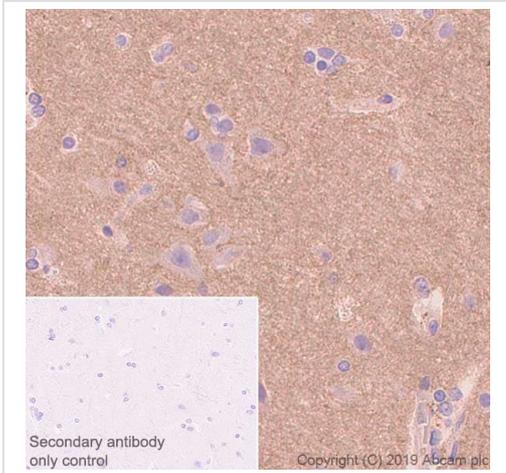


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Semaphorin 7a antibody [EPR22644-316] (ab263900)

Immunohistochemical analysis of paraffin-embedded human tonsil tissue labeling Semaphorin 7a with ab263900 at 1/100 followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Positive staining on human tonsil is observed. The section was incubated with ab263900 for 30 mins at RT. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with hematoxylin.

Secondary antibody only control: Ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Semaphorin 7a antibody [EPR22644-316] (ab263900)

Immunohistochemical analysis of paraffin-embedded human cerebral cortex tissue labeling Semaphorin 7a with ab263900 at 1/100 followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Positive staining on human cerebral cortex is observed. The section was incubated with ab263900 for 30 mins at RT. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with hematoxylin.

Secondary antibody only control: Ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins.

Why choose a recombinant antibody?

 <p><b>Research with confidence</b> Consistent and reproducible results</p>	 <p><b>Long-term and scalable supply</b> Recombinant technology</p>
 <p><b>Success from the first experiment</b> Confirmed specificity</p>	 <p><b>Ethical standards compliant</b> Animal-free production</p>

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**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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