abcam

Product datasheet

Anti-Semaphorin 7a antibody ab23578

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Overview

Product name Anti-Semaphorin 7a antibody

Description Rabbit polyclonal to Semaphorin 7a

Host species Rabbit

Specificity ab23578 detects Semaphorin 7a protein at 75 kDa by WB. Semaphorin 7a is a protein that is

tethered to the cell membrane via a GPI-anchor and is also glycosylated, therefore it is not surprising that in WB we see some additional bands at ~50 and 100 kDa which are likely to be cleavage fragments and glycosylated protein respectively. Preincubation with the immunizing

peptide ab30844 is successful in blocking antibody staining.

Tested applications Suitable for: WB, IP

Unsuitable for: ICC/IF

Species reactivity Reacts with: Mouse, Rat

Predicted to work with: Cow

Immunogen Synthetic peptide conjugated to KLH derived from within residues 1 - 100 of Mouse Semaphorin

7a. Read Abcam's proprietary immunogen policy (Peptide available as ab30844.)

Positive control WB: Mouse and rat brain tissue lysate. IP: Mouse brain tissue lysate.

General notes Negative control: HEK cells

The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. 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, along with publications, customer reviews and Q&As

Properties

Form Liquid

Storage instructions Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -

80°C. Avoid freeze / thaw cycle.

Storage buffer pH: 7.40

Preservative: 0.02% Sodium azide

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Constituent: PBS

Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.

Purity Immunogen affinity purified

Clonality Polyclonal

Isotype IgG

Applications

The Abpromise guarantee

Our <u>Abpromise guarantee</u> covers the use of ab23578 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		Use a concentration of 1 µg/ml. Detects a band of approximately 75, 90 kDa (predicted molecular weight: 75 kDa).
IP		Use at an assay dependent concentration.

Application notes Is unsuitable for ICC/IF.

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 lg-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



Western blot - Anti-Semaphorin 7a antibody (ab23578)

All lanes: Anti-Semaphorin 7a antibody (ab23578) at 1 µg/ml

Lane 1: Mouse brain tissue lysate

Lane 2: Mouse cerebellum tissue lysate

Lane 3: Rat brain tissue lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat polyclonal to Rabbit lgG - H&L - Pre-Adsorbed (HRP) at 1/50000 dilution

Predicted band size: 75 kDa **Observed band size:** 75 kDa

Additional bands at: 90 kDa (possible glycosylated form)

Exposure time: 8 minutes

Gel type: MOPS

Blocking buffer: 2% BSA block

Immunoprecipitation - Anti-Semaphorin 7a antibody (ab23578)

Semaphorin 7a was immunoprecipitated using 0.5mg Mouse Brain whole tissue lysate, $5\mu g$ of Rabbit polyclonal to Semaphorin 7a and $50\mu l$ of protein G magnetic beads (+). No antibody was added to the control (-).

The antibody was incubated under agitation with Protein G beads for 10min, Mouse Brain whole tissue lysate lysate diluted in RIPA buffer was added to each sample and incubated for a further 10min under agitation.

Proteins were eluted by addition of 40μ I SDS loading buffer and incubated for 10min at 70^{o} C; 10μ I of each sample was separated on a SDS PAGE gel, transferred to a nitrocellulose membrane, blocked with 5% BSA and probed with ab23578.

Secondary: Mouse monoclonal [SB62a] Secondary Antibody to

Rabbit IgG light chain (HRP) (ab99697).

Band: 75kDa: Semaphorin 7a.

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

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