

Product datasheet

Anti-TIAM2 antibody [EPR16838] ab199426

Recombinant RabMAb

8 Images

Overview

Product name	Anti-TIAM2 antibody [EPR16838]
Description	Rabbit monoclonal [EPR16838] to TIAM2
Host species	Rabbit
Tested applications	Suitable for: Flow Cyt (Intra), WB, IHC-P, ICC/IF
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: K562, 293, RAW 264.7, PC-12, NIH/3T3 and C6 whole cell lysates and human fetal brain tissue lysate. IHC-P: Human gliocytoma. ICC/IF: RAW 264.7. Flow Cyt (intra): K562 cells.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

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 long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 40% Glycerol (glycerin, glycerine), 59% PBS, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR16838
Isotype	IgG

Applications

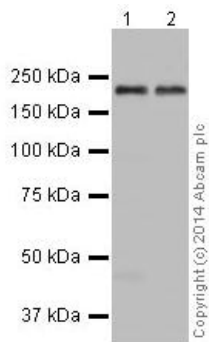
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab199426 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		1/450. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
WB		1/1000. Detects a band of approximately 193 kDa (predicted molecular weight: 193 kDa).
IHC-P		1/500. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
ICC/IF		1/1000.

Target

Function	Modulates the activity of RHO-like proteins and connects extracellular signals to cytoskeletal activities. Acts as a GDP-dissociation stimulator protein that stimulates the GDP-GTP exchange activity of RHO-like GTPases and activates them. Mediates extracellular laminin signals to activate Rac1, contributing to neurite growth. Involved in lamellipodial formation and advancement of the growth cone of embryonic hippocampal neurons. Promotes migration of neurons in the cerebral cortex. When overexpressed, induces membrane ruffling accompanied by the accumulation of actin filaments along the altered plasma membrane (By similarity). Activates specifically RAC1, but not CDC42 and RHOA.
Tissue specificity	Expressed in the occipital, frontal and temporal lobes, cerebellum, putamen and testis.
Sequence similarities	Belongs to the TIAM family. Contains 1 DH (DBL-homology) domain. Contains 1 PDZ (DHR) domain. Contains 2 PH domains. Contains 1 RBD (Ras-binding) domain.
Domain	The PH 1 domain and amino acids 621-782 (a region called TSS; otherwise known as CC-Ex) are necessary for membrane localization. The PH 1 and TSS domains are necessary for Rac1 activity. The PH 2 domain is engaged in the enhancement of the catalytic activity of the adjacent DH domain. The PH 1, TSS and DH domains are necessary to induce neurite-like structure.
Post-translational modifications	Phosphorylated on serine and threonine residues. Phosphorylated on Thr-1648 by Rho-kinase. Its phosphorylation by Rho-kinase inhibits its guanine nucleotide exchange activity, its interaction with MAP1A, MAP1B, PARP1 and YWHAE and reduces its ability to promote neurite growth.
Cellular localization	Cytoplasm. Cell projection > lamellipodium. Cell projection > filopodium. Cell projection > growth cone. Localizes to the plasma membrane in neurites.

Images



Western blot - Anti-TIAM2 antibody [EPR16838] (ab199426)

All lanes : Anti-TIAM2 antibody [EPR16838] (ab199426) at 1/10000 dilution

Lane 1 : K562 (Human chronic myelogenous leukemia cells from bone marrow) whole cell lysate

Lane 2 : 293 (Human embryonic kidney) whole cell lysate

Lysates/proteins at 20 µg per lane.

Secondary

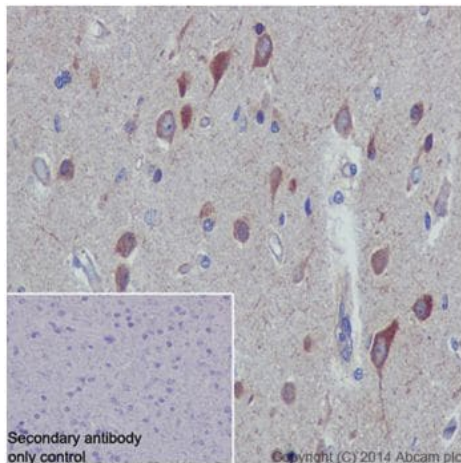
All lanes : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 193 kDa

Observed band size: 193 kDa

Exposure time: 1 minute

Blocking/dilution buffer: 5% NFDM/TBST.

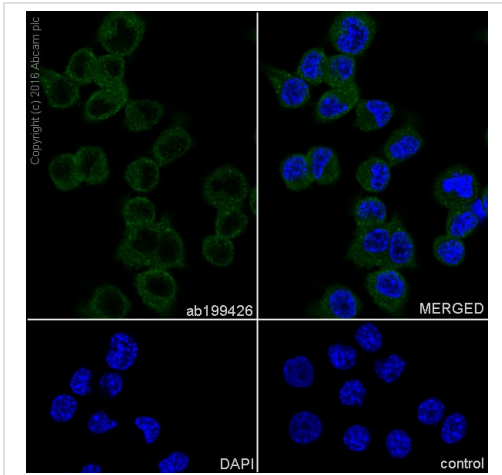


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TIAM2 antibody [EPR16838] (ab199426)

Immunohistochemical analysis of paraffin-embedded Human gliocytoma tissue labeling TIAM2 with ab199426 at 1/500 dilution followed by Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/500 dilution. Cytoplasm staining on Human gliocytoma tissue is observed. Counter stained with Hematoxylin.

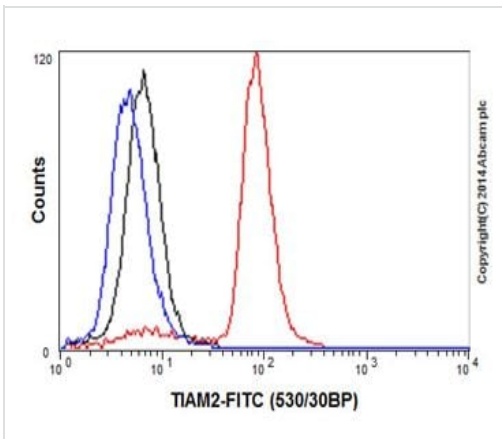
Negative control: Used only secondary antibody.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



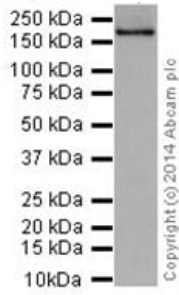
Immunocytochemistry/ Immunofluorescence - Anti-TIAM2 antibody [EPR16838] (ab199426)

Immunocytochemistry/Immunofluorescence analysis of Raw264.7 cells labelling TIAM2 with ab199426 at 1/500. Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. **ab150077**, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000) was used as the secondary antibody. Control: PBS only. Nuclear counter stain: DAPI.



Flow Cytometry (Intracellular) - Anti-TIAM2 antibody [EPR16838] (ab199426)

Intracellular flow cytometric analysis of 2% paraformaldehyde-fixed K562 (Human chronic myelogenous leukemia cells from bone marrow) cells labeling U TIAM2 with ab199426 at 1/450 dilution (red). The secondary antibody was Goat anti rabbit IgG (FITC) at 1/150 dilution. The isotype control is Rabbit monoclonal IgG (black) and the cell without incubation with primary antibody and secondary antibody is blue.



Western blot - Anti-TIAM2 antibody [EPR16838] (ab199426)

Anti-TIAM2 antibody [EPR16838] (ab199426) at 2000 cells + Human fetal brain lysate at 10 μ g

Secondary

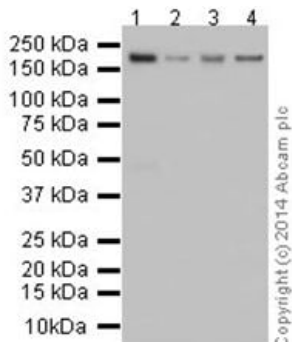
Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/1000 dilution

Predicted band size: 193 kDa

Observed band size: 193 kDa

Exposure time: 1 minute

Blocking/dilution buffer: 5% NFDm/TBST.



Western blot - Anti-TIAM2 antibody [EPR16838] (ab199426)

All lanes : Anti-TIAM2 antibody [EPR16838] (ab199426) at 1/1000 dilution

Lane 1 : Rat brain lysate at 10 μ g

Lane 2 : RAW 264.7 (Mouse macrophage cells transformed with Abelson murine leukemia virus) whole cell lysate at 10 μ g

Lane 3 : PC-12 (Rat adrenal gland pheochromocytoma) whole cell lysate at 10 mg/ml

Lane 4 : NIH/3T3 (mouse embryo fibroblast cells) whole cell lysate at 10 μ g

Secondary

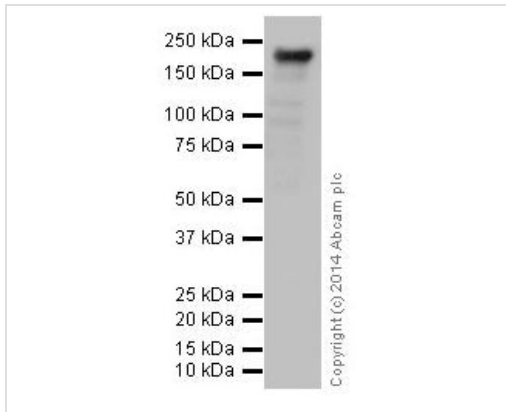
All lanes : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 193 kDa

Observed band size: 193 kDa

Exposure time: 1 minute

Blocking/dilution buffer: 5% NFDm/TBST.



Western blot - Anti-TIAM2 antibody [EPR16838] (ab199426)

Anti-TIAM2 antibody [EPR16838] (ab199426) at 1/1000 dilution + C6 (rat glial tumor cells) whole cell lysate at 10 µg

Secondary

Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution





Predicted band size: 193 kDa

Observed band size: 193 kDa

Exposure time: 1 minute

Blocking/dilution buffer: 5% NFDm/TBST.

Why choose a recombinant antibody?

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

Anti-TIAM2 antibody [EPR16838] (ab199426)

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