

Product datasheet

Anti-TIAM2 antibody [EPR16838] (Alexa Fluor® 647)
ab211725

Recombinant RabMAb

1 Image

Overview

| | |
|----------------------------|--|
| Product name | Anti-TIAM2 antibody [EPR16838] (Alexa Fluor® 647) |
| Description | Rabbit monoclonal [EPR16838] to TIAM2 (Alexa Fluor® 647) |
| Host species | Rabbit |
| Conjugation | Alexa Fluor® 647. Ex: 652nm, Em: 668nm |
| Tested applications | Suitable for: ICC/IF |
| Species reactivity | Reacts with: Mouse Predicted to work with: Rat, Human ▲ |
| Immunogen | Recombinant fragment within Human TIAM2 aa 1600 to the C-terminus. The exact sequence is proprietary. Database link: Q8MVF5 |
| Positive control | ICC/IF: Raw 246.7 cells. |
| General notes | This product is a recombinant monoclonal antibody, which offers several advantages including: <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 For more information see here . Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents . Alexa Fluor® is a registered trademark of Molecular Probes, Inc, a Thermo Fisher Scientific Company. The Alexa Fluor® dye included in this product is provided under an intellectual property license from Life Technologies Corporation. As this product contains the Alexa Fluor® dye, the purchase of this product conveys to the buyer the non-transferable right to use the purchased product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). As this product contains the Alexa Fluor® dye the sale of this product is expressly conditioned on the buyer not using the product or its components, or any materials made using the product or its components, in any activity to generate revenue, which may include, but is not limited to use of the product or its components: (i) to provide a service, information, or data in return for payment (ii) for therapeutic, diagnostic or prophylactic purposes; or (iv) for resale, regardless of whether they are sold for use in research. |

For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, 5781 Van Allen Way, Carlsbad, CA 92008 USA or outlicensing@thermofisher.com.

Properties

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|-----------------------------|--|
| Form | Liquid |
| Storage instructions | Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Stable for 12 months at -20°C. Store In the Dark. |
| Storage buffer | pH: 7.40 Preservative: 0.02% Sodium azide Constituents: 1% BSA, 30% Glycerol, PBS |
| Purity | Protein A purified |
| Clonality | Monoclonal |
| Clone number | EPR16838 |
| Isotype | IgG |

Applications

Our [Abpromise guarantee](#) covers the use of **ab211725** 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 | | 1/1000. This product gave a positive signal in Raw 246.7 cells fixed with 100% methanol (5 min). |

Target

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|------------------------------|---|
| 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.

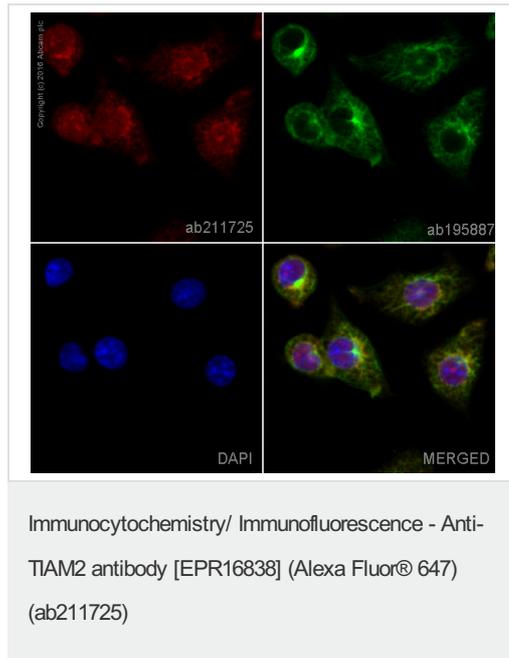
Post-translational modifications

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



ab211725 staining TIAM2 in Raw 246.7 cells. The cells were fixed with 100% methanol (5 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab211725 at 1/1000 dilution (shown in red) and [ab195887](#), Mouse monoclonal to alpha Tubulin (Alexa Fluor® 488), at 1/250 dilution (shown in green). Nuclear DNA was labelled with DAPI (shown in blue).

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

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