

Product datasheet

Anti-Epac1 antibody [EPR1672] (Alexa Fluor® 488)
ab201506

Recombinant RabMAb

1 Image

Overview

Product name	Anti-Epac1 antibody [EPR1672] (Alexa Fluor® 488)
Description	Rabbit monoclonal [EPR1672] to Epac1 (Alexa Fluor® 488)
Host species	Rabbit
Conjugation	Alexa Fluor® 488. Ex: 495nm, Em: 519nm
Tested applications	Suitable for: ICC/IF
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide within Human Epac1 (C terminal). The exact sequence is proprietary.
Positive control	ICC/IF: HeLa cells.
General notes	<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> <p>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) in manufacturing; (ii) to provide a service, information, or data in return for payment (iii) 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.</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.

Stable for 12 months at -20°C. Store In the Dark.

Storage buffer	pH: 7.4 Preservative: 0.02% Sodium azide Constituents: 30% Glycerol, PBS, 1% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR1672
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab201506** 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
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ICC/IF		1/50. This product gave a positive signal in HeLa cells fixed with 100% methanol (5 min).
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Target

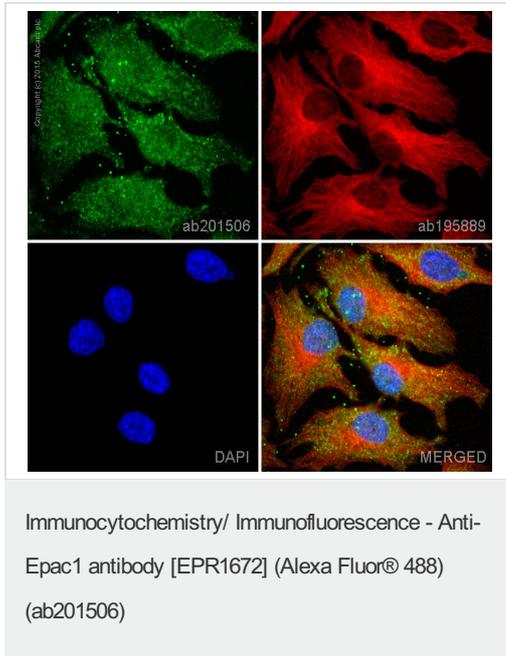
Relevance

The activation of RaP1 by cAMP is independent of PKA and is mediated by recently discovered family of guanine nucleotide exchange factors (GEFs) called cAMP-GEFs or Epacs. The Epac signaling therefore represents a novel mechanism for cAMP signaling with in the cAMP cascade. There are 2 members of the Epac family, Epac1 and Epac 2. Both proteins are multidomain proteins containing an autoinhibitory cAMP-binding domain that inhibits the catalytic region and a DEP domain (dishevelled, Egl-10 and pleckstrin homology domain) targeting the membrane anchors. EPAC2 has an additional cAMP-binding site in its N-terminus that binds cAMP with low affinity. EPAC1 mRNA is broadly expressed, with particularly high levels occurring in the thyroid, ovary, kidney and certain brain regions, whereas expression of EPAC2 mRNA appears to be restricted to the brain and adrenal glands. Epac 1 and Epac 2 also interact with light chain 2 (LC2) or MAP1A that serves as a scaffolding structure to stabilize the signal transduction complex. The Epac 1-selective antibodies were generated against unique antigenic sequences form near N-terminus and between RasGEFN and Ras GEF domains. The antibodies to Epac 1 are affinity purified over immobilized antigen based chromatography.

Cellular localization

Endomembrane system

Images



ab201506 staining Epac1 in HeLa 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 ab201506 at a 1/50 dilution (shown in green) and ab195889, Mouse monoclonal to alpha Tubulin (Alexa Fluor® 594), at a 1/250 dilution (shown in red). Nuclear DNA was labelled with DAPI (shown in blue).

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

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