abcam

Product datasheet

Alexa Fluor® 647 Anti-AKT1 + AKT2 antibody [EPR18405] ab225347

Recombinant RabMAb

3 Images

Overview

Product name	Alexa Fluor® 647 Anti-AKT1 + AKT2 antibody [EPR18405]
Description	Alexa Fluor® 647 Rabbit monoclonal [EPR18405] to AKT1 + AKT2
Host species	Rabbit
Conjugation	Alexa Fluor® 647. Ex: 652nm, Em: 668nm
Tested applications	**Suitable for:** Flow Cyt (Intra), ICC/IF
Species reactivity	**Reacts with:** Mouse, Human **Predicted to work with:** Rat
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	ICC/IF: NIH/3T3 cells. Flow Cyt (intra): HeLa cells.
General notes	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: 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**.

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. Avoid freeze / thaw cycle. Stable for 12 months at -20°C. Store In the Dark.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: PBS, 1% BSA, 30% Glycerol (glycerin, glycerine)
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR18405
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab225347 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

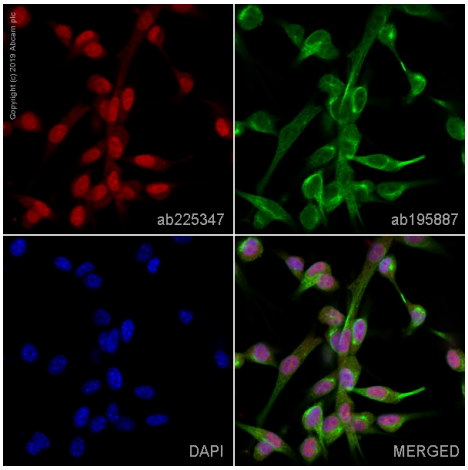
Application	Abreviews	Notes
Flow Cyt (Intra)		1/500.
ICC/IF		1/100. This product gave a positive signal in NIH3T3 fixed with 4% formaldehyde (10 min).

Target

Relevance The serine/threonine kinase AKT (protein kinase B or PKB) has a central role in the regulation of several signaling pathways controlling cell proliferation, apoptosis, angiogenesis, and diabetes. In humans, there are three genes in the "AKT family": AKT1, AKT2, and AKT3. AKT1 is catalytically inactive in serum starved primary and immortalized fibroblasts. AKT1 and the related AKT2 are activated by platelet derived growth factor. The activation is rapid and specific. In the developing nervous system AKT is a critical mediator of growth factor induced neuronal survival. Survival factors can suppress apoptosis in a transcription independent manner by activating the serine/threonine kinase AKT1, which then phosphorylates and inactivates components of the apoptotic machinery. AKT2 is a putative oncogene and is a general protein kinase capable of phophorylating several known proteins. AKT2 is amplified and overexpressed in some human carcinomas. AKT2 acts primarily as a regulator of glucose metabolism.

Cellular localization ATK1: Cytoplasm. Nucleus. Cell membrane. Note: Nucleus after activation by integrin-linked protein kinase 1 (ILK1). Nuclear translocation is enhanced by interaction with TCL1A.

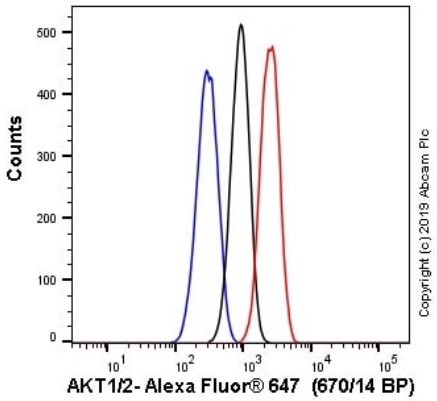
Images



Immunocytochemistry/ Immunofluorescence - Alexa Fluor® 647 Anti-AKT1 + AKT2 antibody [EPR18405] (ab225347)

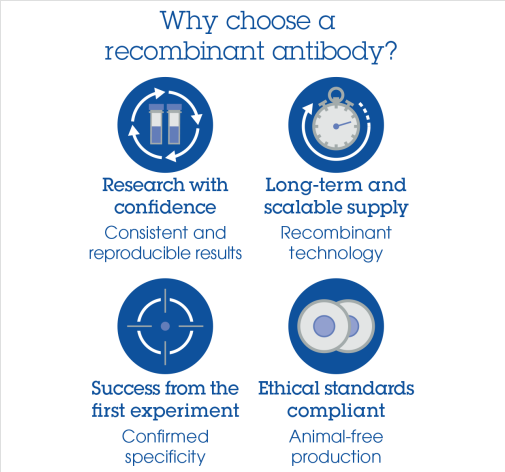
ab225347 staining AKT1/2 in NIH3T3 cells. The cells were fixed with 4% formaldehyde (10 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab225347 at 1/100 dilution (shown in red) and **ab195887**, Mouse monoclonal to alpha Tubulin (Alexa Fluor® 488), at 1/250 dilution (shown in green). Nuclear DNA was labeled with DAPI (shown in blue).

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



Flow Cytometry (Intracellular) - Alexa Fluor® 647 Anti-AKT1 + AKT2 antibody [EPR18405] (ab225347)

Overlay histogram showing HeLa cells stained with ab225347 (red line). The cells were fixed with 4 % formaldehyde (10 min) and then permeabilized with 0.1 % PBS-Triton X-100 for 15 min. The cells were then incubated in 1x PBS containing 10 % normal goat serum to block non-specific protein-protein interaction followed by the antibody (ab225347) (1x 10^6 in 100µL at 1 µg/ml (1/500)) for 30 min at 22°C. Isotype control antibody (black line) was Rabbit IgG (monoclonal) Alexa Fluor®647 (**ab199093**) used at the same concentration and conditions as the primary antibody. Unlabelled sample (blue line) was also used as a control. Acquisition of >5,000 events were collected using a 40 mW Red laser (640nm) and 670/14 bandpass filter.



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