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antibody and ELISA experts

BOSTER BIOLOGICAL TECHNOLOGY
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Anti-Proline-rich AKT1 substrate 1 AKT1S1 Antibody

Catalog Number: A03629

Introduction

CD3epsilon is a 20kD chain, which together with CD3lambda, CD3delta, and CD3zeta, and a T cell receptor (alpha/beta or gamma/) form the CD3/T-cell receptor complex. It is a specific marker for T lymphocytes, NK T cells, and some thymocytes. Crosslinking of TCR initiates an intracellular signaling cascade resulting in cellular activation and proliferation. The OKT3 antibody has been reported to have potent immunosuppressive properties in vivo and has been proved effective in the treatment of renal, heart, and liver allograft rejection.

This antibody is routinely tested by flow cytometric analysis. Flow cytometry and other applications were tested during antibody development or are reported in the literature.

Application Information

Each lot of this antibody has been quality control tested by flow cytometric analysis of human PBMCs. For flow cytometric staining, the recommended use of this antibody is ≤ 0.5µg per 1x106 cells in 100µl of staining volume followed by a secondary florescent conjugated anti-mouse antibody. However, it is strongly suggested that the antibody reactivity be empirically titrated for optimal performance in the application of interest.

About AKT1S1

The Akt signaling pathway contributes to the regulation of apoptosis after a variety of cell death signals. AKT1S1, also known as PRAS40, is a proline-rich substrate of the kinase AKT1 and is thought to play a role in neuroprotection mediated by nerve growth factor (NGF) after transient focal cerebral ischemia (1). AKT1S1 is also a substrate and potential regulator of mammalian target of rapamycin (mTOR), a serine/threonine kinase that regulates cell growth and cell cycle, and a negative regulator of autophagy (2). Treatment with the insulin-like growth factor-1 (IGF1) can indusce the phosphorylation of AKT1S1 via the PI3K/AKT signaling pathway in PC12 cells (3).

Overview

Product Name	Anti-Proline-rich AKT1 substrate 1 AKT1S1 Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Proline-rich AKT1 substrate 1 AKT1S1 Antibody (Catalog # A03629). Tested in ELISA, WB, IHC-P, IF applications. This antibody reacts with Human, Mouse, Rat.
Conjugate	Biotin
Application	ELISA, IF, IHC-P, WB
Clonality	Polyclonal SK7
Formulation	AKT1S1 Antibody is supplied in PBS containing 0.02% sodium azide.
Storage Instructions	AKT1S1 antibody can be stored at 4°C for three months and -20°C, stable for up to one year.
Host	Rabbit

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Uniprot ID	Q96B36

Technical Details

Immunogen	AKT1S1 antibody was raised against a 19 amino acid peptide near the carboxy terminus of human AKT1S1. The immunogen is located within amino acids 190 - 240 of AKT1S1.
Predicted Reactive Species	Bovine, Sheep
Cross Reactivity	AKT1S1 antibody is human, mouse and rat reactive. At least three isoforms of AKT1S1 are known to exist.
Isotype	IgG
Form	Liquid
Concentration	1 mg/mL
Purification	AKT1S1 Antibody is affinity chromatography purified via peptide column.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: AKT1S1 antibody can be used for detection of AKT1S1 by Western blot at 1 - 2 ug/mL. Antibody validated: Western Blot in human samples; Immunohistochemistry in rat samples and Immunofluorescence in rat samples. All other applications and species not yet tested. Optimal dilutions for each application should be determined by the researcher.

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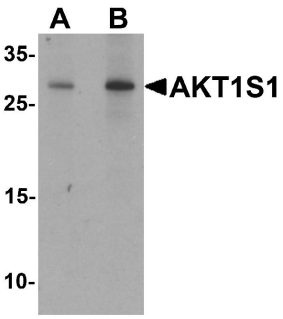
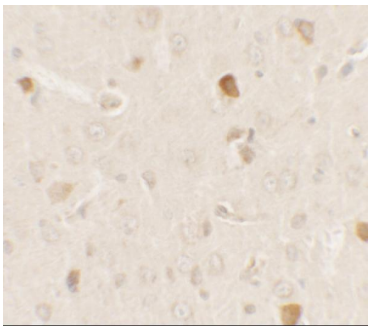
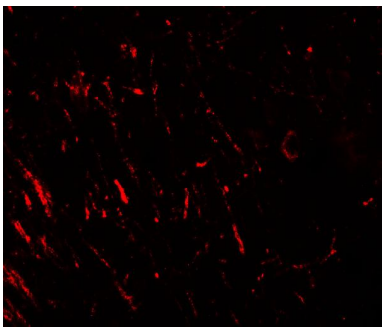
Anti-Proline-rich AKT1 substrate 1 AKT1S1 Antibody (A03629) Images



Western blot analysis of AKT1S1 in human brain tissue lysate with AKT1S1 antibody at (A) 1 and (B) 2 ug/mL.



Immunohistochemistry of AKT1S1 in rat brain tissue with AKT1S1 antibody at 2.5 ug/ml.



Immunofluorescence of AKT1S1 in rat brain tissue with AKT1S1 antibody at 20 ug/ml.