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Anti-AKT AKT1 Antibody

Catalog Number: A00024-1

About AKT1, AKT2, AKT3

AKT is a component of the PI-3 kinase pathway and is activated by phosphorylation at Ser 473 and Thr 308. AKT is a cytoplasmic protein also known as AKT1, Protein Kinase B (PKB) and rac (related to A and C kinases). AKT is a key regulator of many signal transduction pathways. AKT Exhibits tight control over cell proliferation and cell viability. Overexpression or inappropriate activation of AKT is noted in many types of cancer. AKT mediates many of the downstream events of PI 3-kinase (a lipid kinase activated by growth factors, cytokines and insulin). PI 3-kinase recruits AKT to the membrane, where it is activated by PDK1 phosphorylation. Once phosphorylated, AKT dissociates from the membrane and phosphorylates targets in the cytoplasm and the cell nucleus. AKT has two main roles: (i) inhibition of apoptosis; (ii) promotion of proliferation. Anti-AKT Antibody is ideal for investigators involved in Cell Signaling, Cancer, Neuroscience, Signal Transduction research.

Overview

Product Name	Anti-AKT AKT1 Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-AKT AKT1 Antibody (Catalog # A00024-1). Tested in WB applications. This antibody reacts with Human, Mouse, Rat.
Application	WB
Clonality	Polyclonal
Formulation	0.02 M Potassium Phosphate, 0.5 M Sodium Chloride, pH 7.2, 0.01% (w/v) Sodium Azide
Storage Instructions	Store vial at -20°C prior to opening. Aliquot contents and freeze at -20°C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4°C as an undiluted liquid. Dilute only prior to immediate use. Expiration date is one (1) year from date of opening. (Ship on dry ice.)
Host	Rabbit
Uniprot ID	P31749

Technical Details

Immunogen	Anti-AKT Pan Reactive Antibody was produced in rabbits by repeated immunizations with a cocktail containing recombinant human AKT1, AKT2, and AKT3 protein isoforms.
Predicted Reactive Species	Bovine, Canine, Monkey
Isotype	IgG
Form	Liquid (sterile filtered)

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Concentration	1.0 mg/ml by UV absorbance at 280 nm
Purification	AKT Antibody reacts with the AKT from human tissues. Anti-AKT antibody was purified from monospecific antiserum by Protein A chromatography. Based on sequence we expect this antibody to react as well with rat, mouse, and chicken AKT.
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: ELISA: User optimized Flow Cytometry: User optimized IHC: 1:500 - 1:2,000 IF Microscopy: 1:500 - 1:2,000 WB: 1:1,000 - 1:5,000

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Anti-AKT AKT1 Antibody (A00024-1) Images

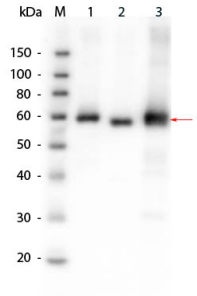

Figure 1. Western blot analysis of AKT1, AKT2, AKT3 using anti-AKT1, AKT2, AKT3 antibody (A00024-1).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.
After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-AKT1, AKT2, AKT3 antigen affinity purified polyclonal antibody (Catalog # A00024-1) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system.

17 Publications Citing This Product

1. PubMed ID: 33654381, Xu Y,Chen W,Chen Z,Huang M,Yang F,Zhang Y.Mechanism of Action of Xiaoyao San in Treatment of Ischemic Stroke is Related to Anti-Apoptosis and Activation of PI3K/Akt Pathway.Drug Des Devel Ther.2021 Feb 22;15:753-767.doi:10.2147/DDDT.S280217.PMID:33654381;

2. PubMed ID: -, Lu Kong,Yongya Wu,Wangcheng Hu,Lin Liu,Yuying Xue,Geyu Liang,Mechanisms underlying reproductive toxicity induced by nickel nanoparticles identified by comprehensive gene expression analysis in GC-1 spg cells,Environmental Pollution,2021,116556,ISSN 0269-7

3. PubMed ID: 31566725, Ji F,Wang Y,Yuan J,Wu Q,Wang J,Liu D.The potential role of stromal cell-derived factor-1alpha/CXCR4/CXCR7 axis in adipose-derived mesenchymal stem cells.J Cell Physiol.2020 Apr;235(4):3548-3557.doi:10.1002/jcp.29243.Epub 2019 Sep 30.PMID:31566725.

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