

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

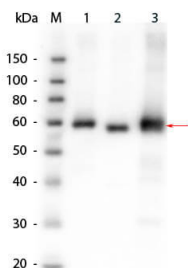
Product Name	Anti-AKT AKT1 Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-AKT AKT1 Antibody (Catalog # A00024-1). Tested in WB applications. This antibody reacts with Human, Mouse, Rat.
Application	ELISA, Flow Cytometry, IF, IHC, WB
Clonality	Polyclonal
Formulation	0.02 M Potassium 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)

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	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 AKT Antibody is tested in western blotting to detect a single band of the expected apparent molecular weight. This antibody is suitable for immunohistochemistry (Formalin-fixed paraffin-embedded sections), immunofluorescence microscopy using paraformaldehyde-fixed primary cardiomyocyte cultures, immunoprecipitation, transfected cell culture, primary cell culture and ELISA. Expect bands at ~56 kDa in size corresponding to AKT by western blotting in the appropriate cell lysate or extract. Researchers should determine optimal titers for applications that are not stated below.

Anti-AKT AKT1 Antibody (A00024-1) Images



Western Blot of Anti-AKT (RABBIT) Antibody. M: SuperSignal MW markers. Lane 1: rAKT1. Lane 2: rAKT2. Lane 3: rAKT3. Load: 50 ng per lane. Primary antibody: Anti-AKT (RABBIT) Antibody at 1:1,000 for 2 hours at RT. Secondary antibody: Peroxidase rabbit secondary antibody at 1:20,000 for 1 hour at RT. Block: Blocking Buffer for Fluorescent Western Blotting, 1/2 hour at RT. Predicted/Observed size: 56kDa, 56kDa for AKT1, 2, and 3.

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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