

Anti-AKT2 (RAT) Biotin Conjugated Monoclonal Antibody - 200-506-J35

Code: 200-506-J35

Size: 50 µg

Product Description: Anti-AKT2 (RAT) Biotin Conjugated Monoclonal Antibody - 200-506-J35

Concentration: 1.0 mg/mL by UV absorbance at 280 nm

PhysicalState: Lyophilized

Label	Biotin
Host	Rat
Gene Name	AKT2
Species Reactivity	Human
Buffer	0.02 M Potassium Phosphate, 0.5 M Sodium Chloride, pH 7.2
Reconstitution Volume	50µL
Reconstitution Buffer	Restore with deionized water (or equivalent)
Stabilizer	10 mg/mL Bovine Serum Albumin (BSA) - Immunoglobulin and Protease free
Preservative	0.01% (w/v) Sodium Azide
Storage Condition	Store vial at 4° C prior to restoration. Restore with deionized water (or equivalent). For extended storage aliquot contents and freeze at -20° C or below. 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 restoration.
Synonyms	rat anti-Anti-AKT2 biotin Conjugation, biotin Conjugated rat anti-Anti-AKT2, AKT 2 antibody, AKT-2, PKB antibody, PKB beta antibody, PKBBETA antibody, PRKBB antibody, Protein kinase Akt 2 antibody, Protein kinase B beta antibody, RAC-beta serine/threonine-protein kinase, RAC-PK-beta
Application Note	Anti-AKT2 BIOTIN Antibody is suitable for Flow Cytometry, ELISA, immunohistochemistry, and western blotting. Expect a band approximately 56 kDa in size corresponding to AKT2 protein by western blotting in the appropriate cell lysate or extract. This monoclonal antibody reacts with human AKT. Specific conditions for reactivity should be optimized by the end user. For immunohistochemistry we recommend the use of fresh frozen tissues. Attempts at staining paraffin-embedded formalin fixed tissues were negative. No pre-treatment of sample is required.
Background	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-AKT2 (RAT) PE conjugated Monoclonal Antibody is ideal for investigators involved in Cell Signaling, Cancer, Neuroscience, Signal Transduction research.
Purity And Specificity	Anti-AKT2 antibody is directed against human AKT2. The antibody detects both unphosphorylated and phosphorylated forms of the protein. Anti-AKT2 was purified from concentrated tissue culture supernate by Protein G chromatography. Cross reactivity with AKT2 from other species has not been determined, however, the sequence of the immunogen shows 88% identity to mouse and 90% identity with rat, therefore, cross reactivity is expected.
ELISA	User Optimized
Western Blot	User Optimized
Immunohistochemistry	User optimized
IF Microscopy	User optimized
Flow Cytometry	User Optimized
Expiration	Expiration date is one (1) year from date of opening.
Immunogen	Anti-AKT2 Antibody was produced in rat by repeated immunizations with a synthetic peptide corresponding to internal residues of human AKT2 protein.

General Reference

Altomare, D. A., Kozak, C. A., Sonoda, G. and Testa, J. R. (1996) Chromosome mapping of the mouse Akt2 gene and Akt2 pseudogene. *Cytogenet. Cell Genet.* 74: 248-251. PubMed ID : 8976376

Related Products

000-000-401	AKT CONTROL PEPTIDE - 000-000-401
200-301-401	Anti-AKT (MOUSE) Monoclonal Antibody - 200-301-401
200-501-E71	AKT2 Antibody200-501-E71
200-301-E75	AKT3 Antibody200-301-E75

Related Links

UniProtKB - P31751

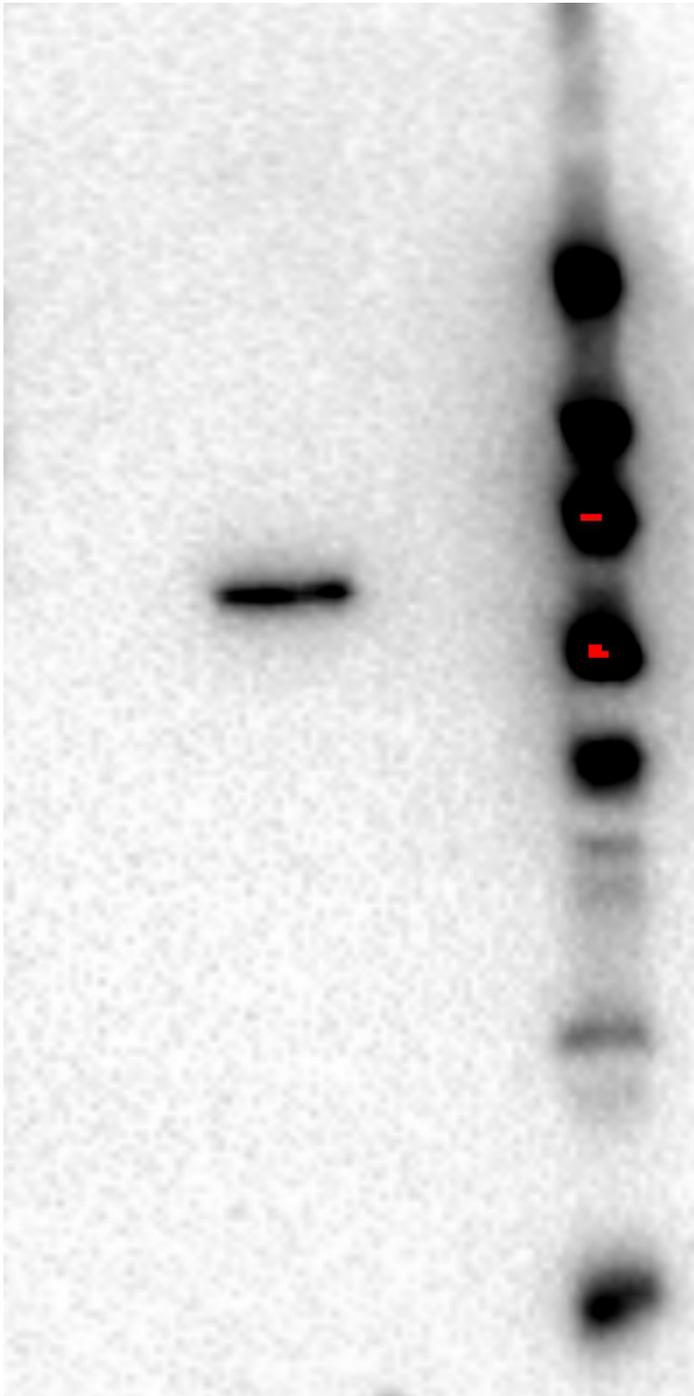
<http://www.uniprot.org/uniprot/P31751>

NCBI - http://www.ncbi.nlm.nih.gov/protein/NP_001617.1
NP_001617.1

GeneID - 208

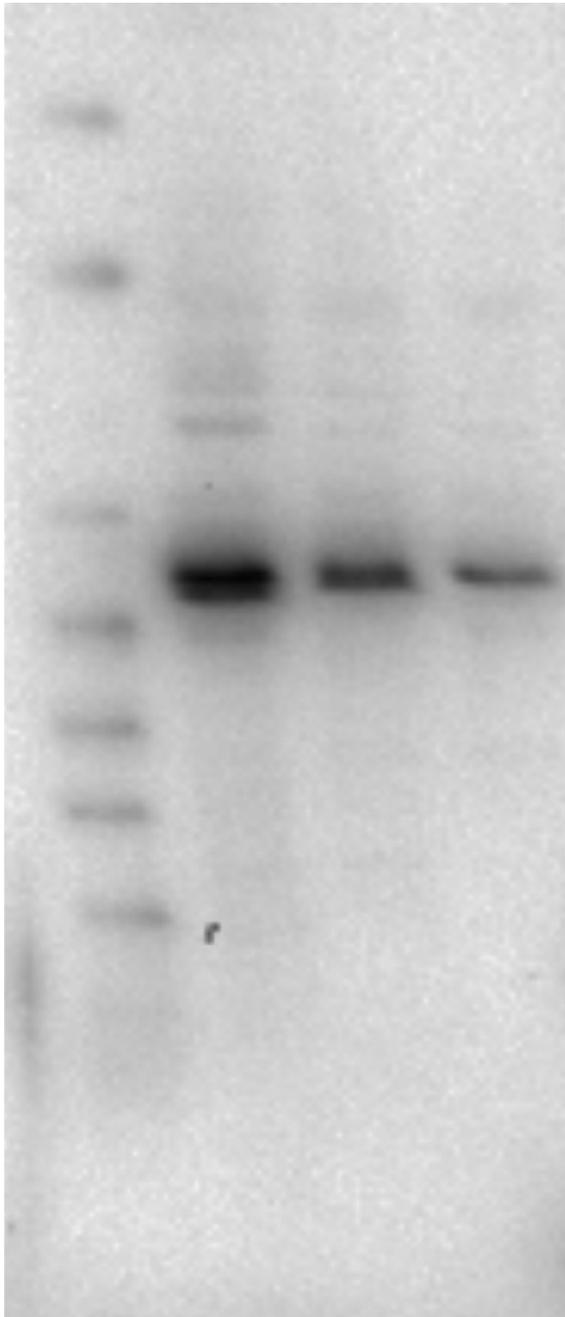
Images

1 Western Blot of Rat monoclonal anti-AKT2 antibody. Lane 1: GST-AKT1.Lane 2: GST-AKT2.Lane 3: GST-AKT3.Load: 50 ng per lane.Primary antibody: anti-AKT2 unconjugated antibody at 1:1000 for overnight at 4°C.Secondary antibody: Goat secondary antibody anti rat at 1:40,000 for 45 min at RT.Block: 5% BLOTTO overnight at 4°C.Predicted/Observed size: 85 kDa for GST-AKT2.



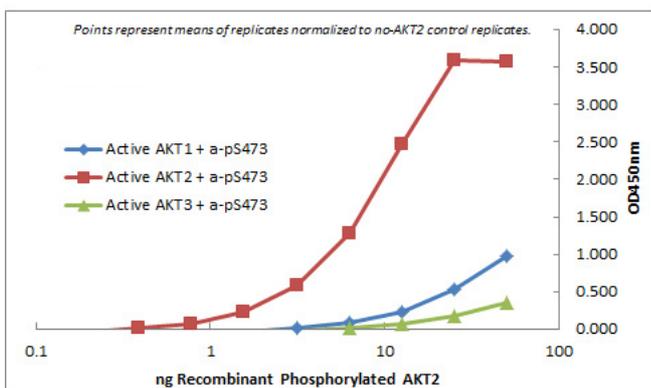
2

Western Blot of Rat Anti-AKT2 antibody. Lane 1: LnCap lysate Lane 2: Jurkat lysate. Lane 3: MDA-MB 468 lysate. Load: 5 μ g per lane. Primary antibody: AKT2 unconjugated antibody at 1:1000 for overnight at 4°C. Secondary antibody: Rat secondary antibody at 1:20,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: 56 kDa for AKT2.



3

ELISA of Rat Monoclonal anti-AKT2 antibody. Antigen: GST AKT1, GST AKT2, GST AKT3. Coating amount: starting from 50 ng/well. Primary antibody: Rat monoclonal anti-AKT2 unconjugated antibody at 100 ng/well. Dilution series: 2-fold. Mid-point concentration: 3 ng/mL Rat monoclonal anti-AKT2 antibody. Secondary antibody: Peroxidase rat secondary antibody at 1:10,000. Substrate: TMB (p/n TMBE-0100).



Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.