

Datasheet for ABIN94790  
**anti-AKT2 antibody (AA 455-468)**



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3 Images

1 Publication

## Overview

Quantity:	100 µg
Target:	AKT2
Binding Specificity:	AA 455-468
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This AKT2 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC), Immunoprecipitation (IP)

## Product Details

Immunogen:	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to aa 455-468 (of 481) of human AKT2 conjugated to Keyhole Limpet Hemocyanin (KLH).
Isotype:	IgG
Characteristics:	Concentration Definition: by UV absorbance at 280 nm

## Target Details

Target:	AKT2
Alternative Name:	AKT2 ( <a href="#">AKT2 Products</a> )
Background:	AKT2 is also known as V-AKT Murine Thymoma Viral Oncogene Homolog 2 antibody, Rac protein kinase beta antibody, PKB beta antibody or PRKBB antibody. AKT2 is an isoform of the

## Target Details

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phosphoinositide-dependent serine-threonine protein kinase AKT and is enriched in insulin-responsive tissues and has been implicated in the metabolic actions of the hormone. AKT2 is a putative oncogene encoding a protein belonging to a subfamily of serine/threonine kinases containing SH2-like (Src homology 2-like) domains. Furthermore, AKT2 was shown to be amplified and overexpressed in 2 of 8 ovarian carcinoma cell lines and 2 of 15 primary ovarian tumors. Over-expression of AKT2 contributes to the malignant phenotype of a subset of human ductal pancreatic cancers. AKT2 is a general protein kinase capable of phosphorylating several known proteins. AKT2 mediates many of the downstream events of PI 3-kinase (a lipid kinase activated by growth factors, cytokines and insulin). PI 3-kinase recruits AKT2 to the membrane, where it is activated by PDK1 phosphorylation. Once phosphorylated, AKT2 dissociates from the membrane and phosphorylates targets in the cytoplasm and the cell nucleus. AKT2 has two main roles: (i) inhibition of apoptosis; (ii) promotion of proliferation.

Synonyms: 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

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Gene ID: 208, 164731

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UniProt: [P31751](#)

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Pathways: [PI3K-Akt Signaling](#), [RTK Signaling](#), [AMPK Signaling](#), [TLR Signaling](#), [Cellular Glucan Metabolic Process](#), [Regulation of Carbohydrate Metabolic Process](#), [Hepatitis C](#), [VEGF Signaling](#)

## Application Details

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Application Notes: This antibody was tested by ELISA and immunoblotting and was found to be reactive with both unphosphorylated and phosphorylated AKT2 in a lysate of HEK293 cells. Although not tested, this antibody is likely functional in immunohistochemistry and immunoprecipitation. This product has been assayed by immunoblot against a HEK293 cell lysate and is reactive at a 1:1,000 dilution showing a band at approximately 60 kDa. A working dilution of 1:4,000 to 1:16,000 is suggested for this product in a standard capture ELISA using TMB (3,3',5,5'-Tetramethylbenzidine) as a substrate for 30 minutes at room temperature against 0.1 ug of the immunizing peptide. Researchers should determine optimal titers for other applications.

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Restrictions: For Research Use only

## Handling

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Format: Liquid

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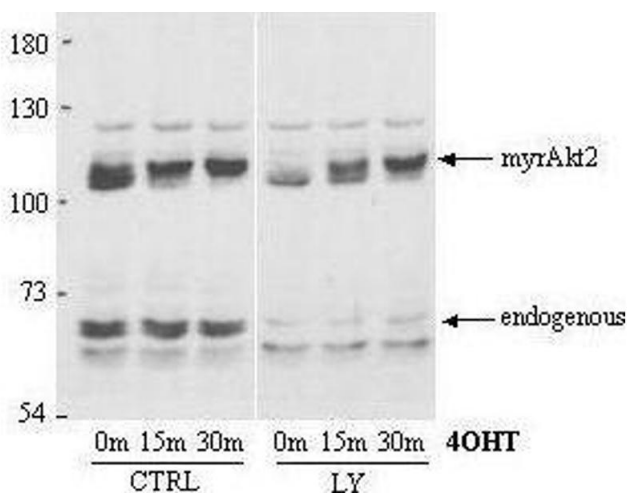
## Handling

Concentration:	1.0 mg/mL
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	Sodium azide
Precaution of Use:	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C

## Publications

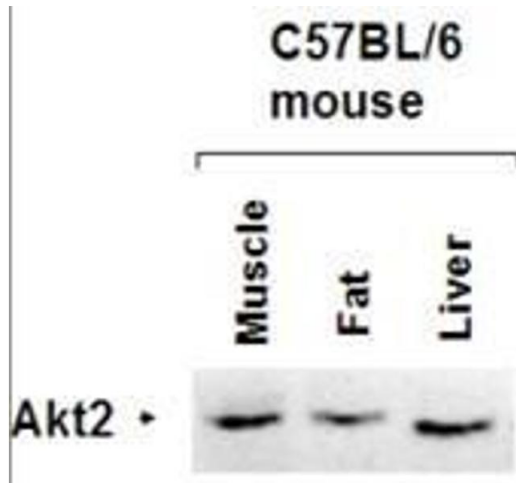
Product cited in: Subramanyam, Takahashi, Hasegawa, Mohri, Okada: "Inhibition of protein kinase Akt1 by apoptosis signal-regulating kinase-1 (ASK1) is involved in apoptotic inhibition of regulatory volume increase." in: **The Journal of biological chemistry**, Vol. 285, Issue 9, pp. 6109-17, (2010) ([PubMed](#)).

## Images



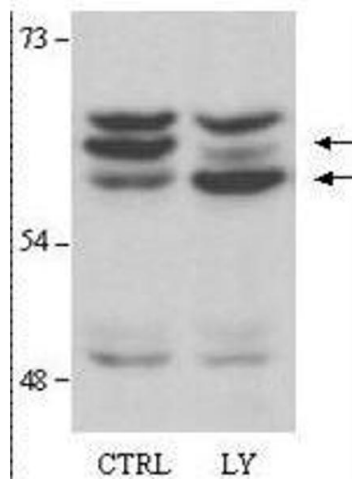
### Western Blotting

**Image 1.** Western Blot of Rabbit Anti-AKT2 antibody. Lane 1: 0 min. Lane 2: 15 min 4OHT (tamoxifen). Lane 3: 30 min 4OHT (tamoxifen). Lane 4: 0 min lysate pretreated-for-15min-with 25uM LY294002. Lane 5: 15 min 4OHT (tamoxifen) lysate pretreated-for-15min-with 25uM LY294002. Lane 6: 30 min 4OHT (tamoxifen) lysate pretreated-for-15min-with 25uM LY294002. Load: 20mg/lane crude HEK293 lysate. Primary antibody: Anti-AKT2 Antibody at 1:1000 for 1h at room temperature. Secondary antibody: rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Observed size: Endogenous Akt2 ~60kDa, myristoylated construct ~110kDa. Other band(s): This treatment has no effect on endogenous Akt2, but causes a band shift upwards in the MyrAkt2.



#### Western Blotting

**Image 2.** Western Blot of Rabbit anti-AKT2 antibody. Lane 1: mouse skeletal muscle tissue lysates. Lane 2: mouse fat tissue lysates. Lane 3: mouse liver tissue lysates. Load: 35 µg per lane. Primary antibody: AKT2 antibody at 1:1,000 for overnight at 4°C. Secondary antibody: rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C.



#### Western Blotting

**Image 3.** Western Blot of Rabbit anti-AKT2 antibody. Lane 1: HEK293 lysate Lane 2: HEK293 lysate pretreated for 15min with 25uM LY294002. Load: 20mg/lane Primary antibody: AKT2 antibody at 1:400 for overnight at 4°C. Secondary antibody: rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed: phosphorylated (top arrow) and the non-phosphorylated (bottom arrow) forms of endogenous Akt2. Other band(s): unspecific.