

# AKT2 (Phospho-Tyr178) Antibody

Catalog No: #SAB470P

Package Size: #SAB470P-1 50ul #SAB470P-2 100ul

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## Description

Product Name	AKT2 (Phospho-Tyr178) Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	Antibodies were produced by immunizing rabbits with synthetic peptide and KLH conjugates. Antibodies were purified by affinity-chromatography using epitope-specific peptide.
Applications	Custom antibody
Species Reactivity	Hu Ms Rt
Immunogen Type	Peptide-KLH
Target Name	AKT2
Other Names	Protein kinase Akt-2,Protein kinase B beta,PKB beta,RAC-PK-beta
Accession No.	uniprot: P31751
Calculated MW	55kDa
Formulation	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 108% glycerol.
Storage	Store at -20°C for long term preservation (recommended). Store at 4°C for short term use.

## Application Details

Western blotting: 1:500~1:1000

## Background

AKT2 is one of 3 closely related serine/threonine-protein kinases (AKT1, AKT2 and AKT3) called the AKT kinase, and which regulate many processes including metabolism, proliferation, cell survival, growth and angiogenesis. This is mediated through serine and/or threonine phosphorylation of a range of downstream substrates. Over 100 substrate candidates have been reported so far, but for most of them, no isoform specificity has been reported. AKT is responsible of the regulation of glucose uptake by mediating insulin-induced translocation of the SLC2A4/GLUT4 glucose transporter to the cell surface. Phosphorylation of PTPN1 at 'Ser-50' negatively modulates its phosphatase activity preventing dephosphorylation of the insulin receptor and the attenuation of insulin signaling. Phosphorylation of TBC1D4 triggers the binding of this effector to inhibitory 14-3-3 proteins, which is required for insulin-stimulated glucose transport. AKT regulates also the storage of glucose in the form of glycogen by phosphorylating GSK3A at 'Ser-21' and GSK3B at 'Ser-9', resulting in inhibition of its kinase activity.

**Note:** This product is for in vitro research use only and is not intended for use in humans or animals.