

## AKT1(phospho-Thr450) Antibody

Catalog No: #11502

Package Size: #11502-1 50ul #11502-2 100ul

Orders: [order@signalwayantibody.com](mailto:order@signalwayantibody.com)Support: [tech@signalwayantibody.com](mailto:tech@signalwayantibody.com)

## Description

Product Name	AKT1(phospho-Thr450) Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	Antibodies were produced by immunizing rabbits with synthetic phosphopeptide and KLH conjugates. Antibodies were purified by affinity-chromatography using epitope-specific phosphopeptide. Non-phospho specific antibodies were removed by chromatography using non-phosphopeptide.
Applications	WB IHC IF
Species Reactivity	Hu Ms Rt
Specificity	The antibody detects endogenous level of AKT1 only when phosphorylated at threonine 450.
Immunogen Type	Peptide-KLH
Immunogen Description	Peptide sequence around phosphorylation site of threonine 450 (T-I-T(p)-P-P) derived from Human AKT1.
Target Name	AKT1
Modification	Phospho
Other Names	RAC-PK-alpha; Protein kinase B;
Accession No.	Swiss-Prot: P31749 NCBI Protein: NP_001014431.1
Uniprot	P31749
GeneID	207;
Concentration	1.0mg/ml
Formulation	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg <sup>2+</sup> and Ca <sup>2+</sup> ), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage	Store at -20°C for long term preservation (recommended). Store at 4°C for short term use.

## Application Details

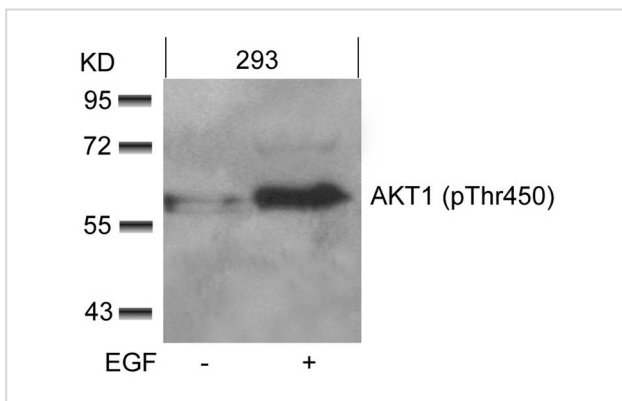
Predicted MW: 60kd

Western blotting: 1:500~1:1000

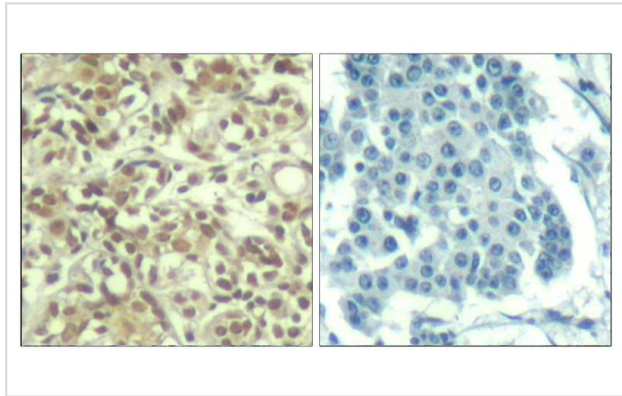
Immunohistochemistry: 1:50~1:100

Immunofluorescence: 1:100~1:200

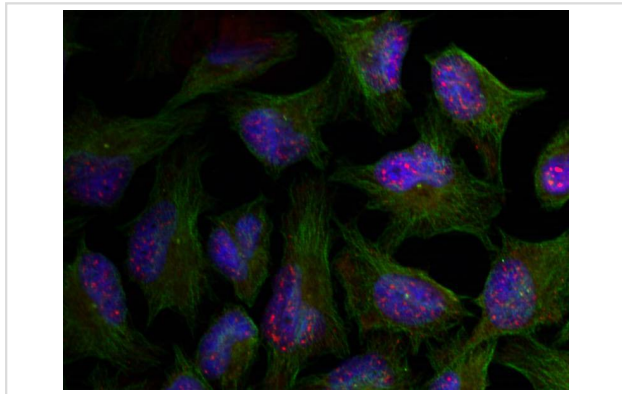
## Images



Western blot analysis of extracts from 293 cells untreated or treated with EGF using AKT1(phospho-Thr450) Antibody #11502.



Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using AKT1(Phospho-Thr450) Antibody #11502(left) or the same antibody preincubated with blocking peptide(right).



Immunofluorescence staining of methanol-fixed HeLa cells using AKT1(phospho-Thr450) Antibody #11502.

## Background

General protein kinase capable of phosphorylating several known proteins. Phosphorylates TBC1D4. Signals downstream of phosphatidylinositol 3-kinase (PI3K) to mediate the effects of various growth factors such as platelet-derived growth factor (PDGF), epidermal growth factor (EGF), insulin and insulin-like growth factor I (IGF-I). Plays a role in glucose transport by mediating insulin-induced translocation of the GLUT4 glucose transporter to the cell surface. Mediates the antiapoptotic effects of IGF-I. Mediates insulin-stimulated protein synthesis by phosphorylating TSC2 at 'Ser-939' and 'Thr-1462', thereby activating mTORC1 signaling and leading to both phosphorylation of 4E-BP1 and in activation of RPS6KB1. Promotes glycogen synthesis by mediating the insulin-induced activation of glycogen synthase.

Xing J, et al. (1998) Mol Cell Biol 18(4): 1946-55.

Tan Y, et al. (1996) EMBO J; 15(17): 4629-42.

Hao, M. et al. (1996) J. Biol. Chem. 271, 29380-29385.

Mayo LD, et al. (2001) Biol Chem; 276(27): 25184-9.

Note: This product is for in vitro research use only