# Akt(Phospho-Ser473) Antibody

Catalog No: #11054



Package Size: #11054-1 50ul #11054-2 100ul #11054-4 25ul

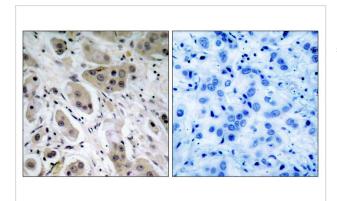
# Overview

Product Name	Akt(Phospho-Ser473) Antibody
Host Species	Rabbit
Clonality	Polyclonal
Applications	WB IHC
Species Reactivity	Hu Ms Rt
Immunogen Type	Peptide-KLH
Target Name	Akt
Modification	Phospho-Ser473
Alternative Names	C-AKT; PKB; PKB-alpha; RAC; RAC-PK-alpha;akt s473;akt 473;akt ser473 antibody

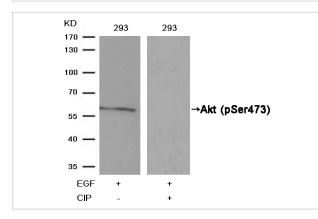
# **Application Details**

Predicted MW: 60kd	
Western blotting: 1:500~1:1000	
Immunohistochemistry: 1:50~1:100	

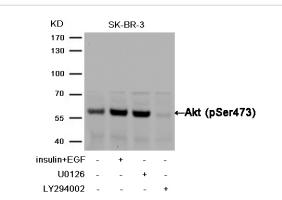
# Images



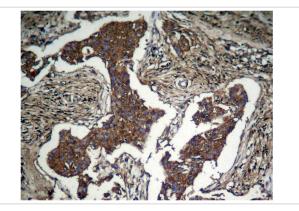
Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using Akt(Phospho-Ser473) Antibody #11054(left) or the same antibody preincubated with blocking peptide(right).



Western blot analysis of extracts from 293 cells, treated with EGF or calf intestinal phosphatase (CIP), using Akt(Phospho-Ser473) Antibody #11054.



Western blot analysis of extracts from SK-BR-3 cells,treated with insulin and EGF, and pretreated with U0126and LY294002 cells using Akt (Phospho-Ser473) Antibody#11054.



Immunohistochemical analysis of paraffinembeddedhuman Lung carcinoma tissue usingAkt (Phospho-Ser473) Antibody #11054.

# **Descriptions**

Immunogen	Peptide sequence around phosphorylation site of serine 473 (Q-F-S(p)-Y-S) derived from Human Akt.
Specificity	The antibody detects endogenous level of Akt only when phosphorylated at serine 473.
Purifiction	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 chromatogramphy using non-phosphopeptide.
Formulation	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg2+ and Ca2+), 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.
Accession NO.	Swiss-Prot: P31749NCBI Protein: NP_001014431.1

# **Related Information**

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.

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Min YH, et al. (2004) Cancer Res; 64(15): 5225-31.

Feng J, et al. (2004) J Biol Chem; 279(34): 35510-7.

# **Published Papers**

Fang Wang, Ting Li, Bin Zhang el at., MicroRNA-19a/b regulates multidrug resistance in human gastric cancer cells by targeting PTEN., Biochemical and Biophysical Research Communications, 434(3):688B<sup>°</sup>C694(2013)

### PMID:23603256

Heng-Fei Luan, Zhi-Bin Zhao, Qi-Hong Zhao el at., Hydrogen sulfide postconditioning protects isolated rat hearts against ischemia and reperfusion

injury mediated by the JAK2/STAT3 survival pathway, Braz J Med Biol Res, 45(10):898-905(2012)

## PMID:22948409

Hongxia Zhanga, Junjie Houb, Ruina Cuia el at., Phosphoproteome analysis reveals an important role for glycogen synthase kinase-3 in perfluorododecanoic acid-induced rat liver toxicity, Toxicology Letters, 218(1):61-69(2013)

### PMID:23353032

Hu Ma, Quan Yao, An-Mei Zhang el at., The Effects of Artesunate on the Expression of EGFR and ABCG2 in A549 Human Lung Cancer Cells and a Xenograft Model., Molecules, 16:10556-10569(2011)

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#### PMID:19272350

Jia J, Xu X, Liu F el at., Identification, Design and Bio-Evaluation of Novel Hsp90 Inhibitors by Ligand-Based Virtual Screening., PLoS ONE, 8(4): e59315(2013)

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Li-Nan Ren, Qing-Fang Li, Feng-Jun Xiao el at., Endocrine glands-derived vascular endothelial growth factor protects pancreatic cancer cells from apoptosis via upregulation of the myeloid cell leukemia-1 protein., Biochemical and Biophysical Research Communications, 386 (2009) 35B°C39(2009)

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LucB<sup>"</sup>B a CallB<sup>"</sup>B¦n, EstefanB<sup>"</sup>B a Moreno, Pedro Barroso-Chinea el at., Cannabinoid Receptors CB1 and CB2 Form Functional Heteromers in Brain., THE JOURNAL OF BIOLOGICAL CHEMISTRY, VOL. 287, NO. 25, pp. 20851B<sup>"</sup>C20865(2012)

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Marc Vendrell, Anabel Molero, Sergio Gonz alez el at., Biotin Ergopeptide Probes for Dopamine Receptors., J. Med. Chem., 54, 1080B°C1090(2011) PMID:21280602

Ning LI, Geng-tao LIU el at., The novel squamosamide derivative FLZ enhances BDNF/TrkB/CREB signaling and inhibits neuronal apoptosis in APP/PS1 mice., Acta Pharmacologica Sinica., 31: 265B"C272(2010)

### PMID:20154710

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## PMID:18601226

Shen J el at., The use of hollow mesoporous silica nanospheres to encapsulate bortezomib and improve efficacy for non-small cell lung cancer therapy, Biomaterials, Biomaterials, 35(1):316B°C326(2013)

#### PMID:24125776

Sheng-Li Lin, Li-Ying Yan, Xin-Tian Zhang el at., ER-a36, a Variant of ER-a, Promotes Tamoxifen Agonist Action in Endometrial Cancer Cells via the MAPK/ERK and PI3K/Akt Pathways., PLoS ONE, 5(2): e9013. doi:10.1371/journal.pone.0009013 (2010)

## PMID:20126312

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Zhi Wang, Guotong Xu, Yalan Wu el at., Neuregulin-1 enhances differentiation of cardiomyocytes from embryonic stem cells., Medical and Biological

Engineering and Computing, 47(1):41B<sup>°</sup>C48(2007)

PMID:18712425

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