Akt(Ab-473) Antibody

Catalog No: #21054

Package Size: #21054-1 50ul #21054-2 100ul #21054-4 25ul

Orders: order@signalwayantibody.com
Support: tech@signalwayantibody.com

Description

Product Name	Akt(Ab-473) 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	WB IHC
Species Reactivity	Hu Ms
Specificity	The antibody detects endogenous level of total Akt protein.
Immunogen Type	Peptide-KLH
Immunogen Description	Peptide sequence around aa. 471~475 (Q-F-S-Y-S) derived from Human Akt.
Target Name	Akt
Other Names	AKT; C-AKT; PKB; PKB-alpha; RAC
Accession No.	Swiss-Prot: P31749NCBI Protein: NP_001014431.1
Concentration	1.0mg/ml
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.

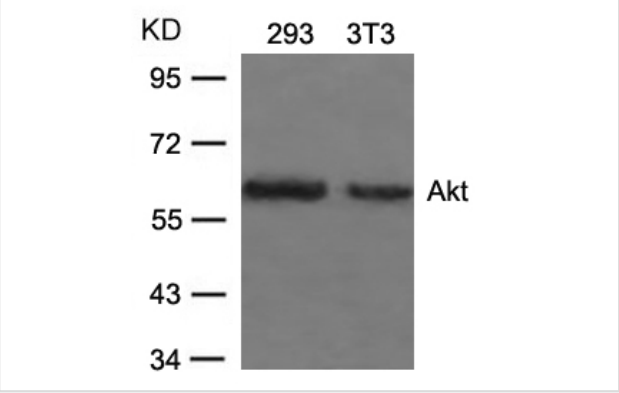
Application Details

Predicted MW: 60kd

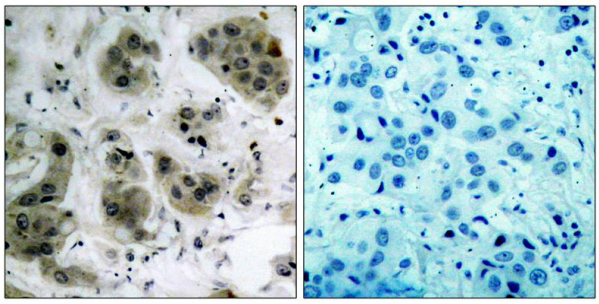
Western blotting: 1:500~1:1000

Immunohistochemistry: 1:50~1:100

Images



Western blot analysis of extracts from 293 and 3T3 cells using Akt(Ab-473) Antibody #21054.



Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using Akt(Ab-473) Antibody #21054(left) or the same antibody preincubated with blocking peptide(right).

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.

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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.
Ayala G, et al. (2004) Clin Cancer Res; 10(19): 6572-8.
Lungu AO, et al. (2004) J Biol Chem; 279(47): 48794-800.

Published Papers

Hyun Seung Ban, Masaharu Uno, Hiroyuki Nakamura el at., Suppression of hypoxia-induced HIF-1 [alpha] accumulation by VEGFR inhibitors: Different profiles of AAL993 versus SU5416 and KRN633. , Cancer letters, 296(1):17-26(2010)

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Jing Zhang, Osamu Yamada, Yoshihisa Matsushita el at., Transactivation of human osteopontin promoter by human T-cell leukemia virus type 1-encoded Tax protein., Leukemia Research, 34(6):763-768(2009)

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Massimo Nabissi, Maria Beatrice Morelli1, Consuelo Amantini el at., TRPV2 channel negatively controls glioma cell proliferation and resistance to Fas-induced apoptosis in ERK-dependent manner., Carcinogenesis, 31(5):794-803(2010)

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Nan Li, Xiaodong Bu, Peng Wu el at., The B‘B B‘B HER2B¨CPI3K/AktB¨CFASN AxisB‘B—B‘B— Regulated Malignant Phenotype of Colorectal Cancer Cells., Lipids, 47:403B¨C411(2012)

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Song Chen, Hedeel Guy Evans, David R el at., FAM129B/MINERVA, a Novel Adherens Junction-associated Protein, Suppresses Apoptosis in HeLa Cells, J. Biol. Chem., 286(12):10201-10209(2011)

PMID:21148485

Ze-yang Ding, Guan-nan Jin, Hui-fang Liang el at., Transforming growth factor B¦Γ induces expression of connective tissue growth factor in hepatic progenitor cells through Smad independent signaling., Cellular Signalling., 25(10):1981B¨C1992(2013)

PMID:23727026

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