

## Akt(Phospho-Thr308) Antibody

Catalog No: #11055



Package Size: #11055-1 50ul #11055-2 100ul

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## Description

Product Name	Akt(Phospho-Thr308) 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	Human;Mouse;Rat
Specificity	The antibody detects endogenous level of Akt only when phosphorylated at threonine 308.
Immunogen Type	Peptide-KLH
Immunogen Description	Peptide sequence around phosphorylation site of threonine 308 (M-K-T(p)-F-C) derived from Human Akt.
Conjugates	Unconjugated
Target Name	Akt
Modification	Phospho
Other Names	C-AKT; PKB; PKB-alpha; RAC; RAC-PK-alpha
Accession No.	Swiss-Prot: P31749NCBI Protein: NP_001014431.1
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

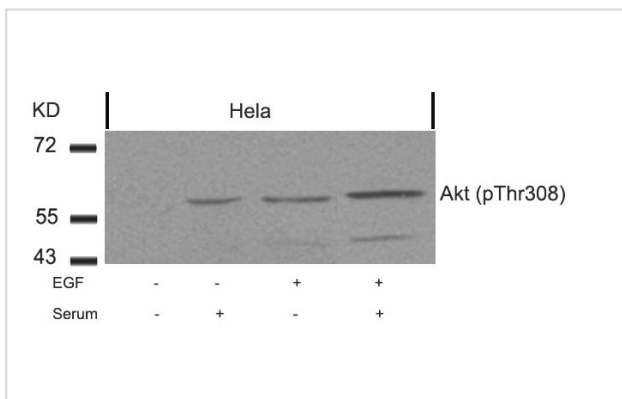
Predicted MW: 60kd

Western blotting: 1:500~1:1000

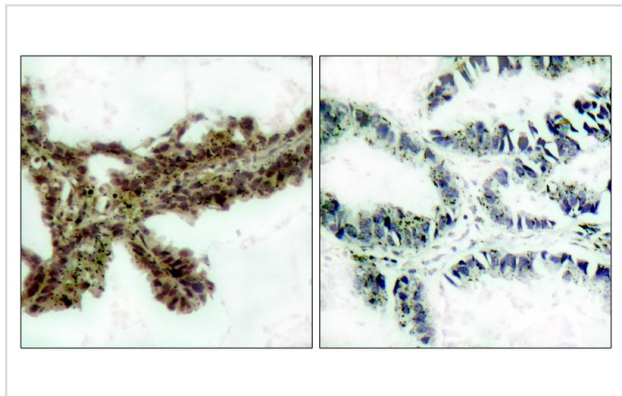
Immunohistochemistry: 1:50~1:100

Immunofluorescence: 1:100~1:200

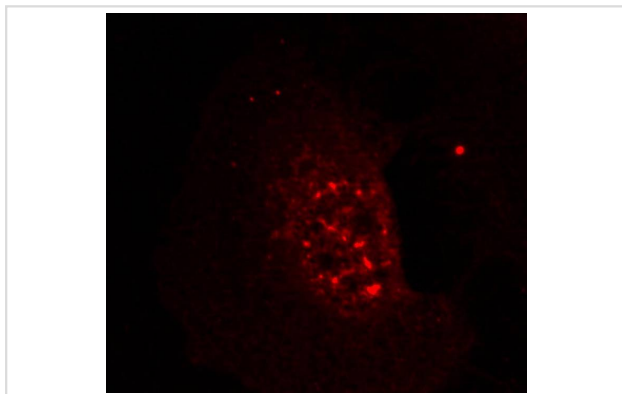
## Images



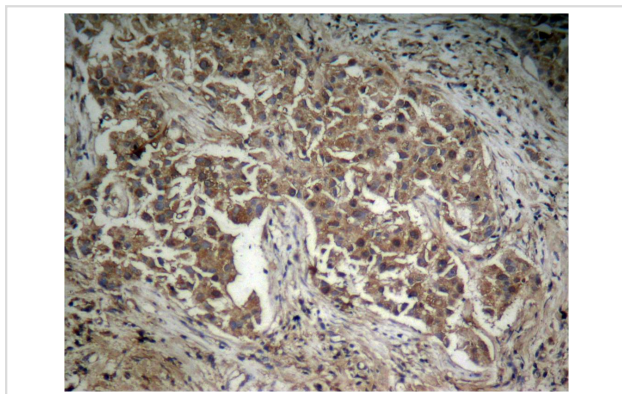
Western blot analysis of extracts from HeLa cells untreated or treated with EGF, serum or both using Akt(Phospho-Thr308) Antibody #11055.



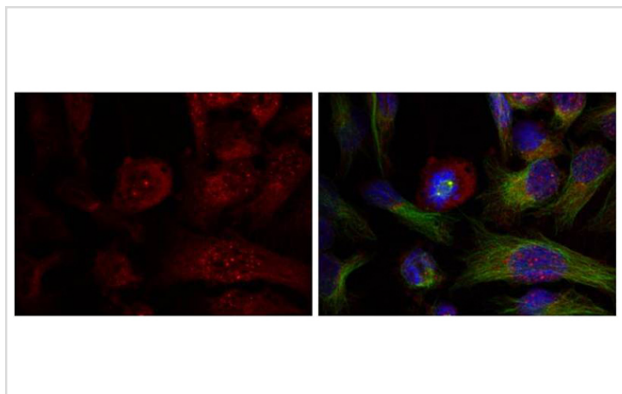
Immunohistochemical analysis of paraffin-embedded human lung carcinoma tissue, using Akt (Phospho-Thr308) Antibody #11055 (left) or the same antibody preincubated with blocking peptide #51055 (right).



Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear dot staining using Akt(Phospho-Thr308) Antibody #11055.



Immunohistochemical analysis of paraffin-embedded human lung carcinoma tissue, using Akt (Phospho-Thr308) Antibody #11055.



Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear dot staining using Akt (Phospho-Thr308) Antibody #11055.

## 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.

Tremblay F, et al. (2005)Diabetes; 54(9): 2674-84.

Xu BE, et al. (2005)J Biol Chem; 280(40): 34218-23.

Samuels Y, et al. (2005)Cancer Cell; 7(6): 561-73.

Di Maira G, et al. (2005)Cell Death Differ; 12(6): 668-77.

## Published Papers

Alexandra V. Andreeva, Jingyan Han et al., T-cadherin modulates endothelial barrier function, Journal of cellular Physiology, 223(1) 1, 94 - 102(2010)

[PMID:20039275](#)

Nan Li, Heng Lu, Chunyan Chen et al., Loss of fatty acid synthase inhibits the  $\zeta$  <sup>ε</sup>HER2-PI3K/Akt axis activity and malignant phenotype of Caco-2 cells Lipids in Health and Disease., Lipids in Health and Disease., 0.557638889(2013)

[PMID:23725225](#)

et al., A role for Wnt/β-catenin signalling in suppressing Bacillus Calmette-Guérin-induced macrophage autophagy. In Microb Pathog on 2019 Feb; by Wu X, Zhang J, et al..PMID:30550847, , (2019)

[PMID:30550847](#)

et al., Pregnane X receptor activation constrains mucosal NF-κB activity in active inflammatory bowel disease. In PLoS One on 2019 Oct 3, by Deuring JJ, Li M, et al..PMID:31581194, , (2019)

[PMID:31581194](#)

et al., Downregulation of FHL1 protein in glioma inhibits tumor growth through PI3K/AKT signaling. In Oncol Lett on 2020 Jun; by Li SZ, Hu YY, et al..PMID: 32382330, , (2020)

[PMID:32382330](#)

et al., Fatty Acid Synthase Regulates Proliferation and Migration of Colorectal Cancer Cells via HER2-PI3K/Akt Signaling Pathway. In Nutr Cancer on 2012 Aug by Nan Li, Xiaodong Bu, et al..PMID:22860766, , (2012)

[PMID:22860766](#)

et al., T-cadherin Modulates Endothelial Barrier Function. In J Cell Physiol on 2010 Apr by Jingyan Han, Mikhail A Kutuzov, et al..PMID:20039275, , (2010)

[PMID:20039275](#)

et al., Glutamate Acting on N-Methyl-D-aspartate Receptors Attenuates Insulin-like Growth Factor-1 Receptor Tyrosine Phosphorylation and Its Survival Signaling Properties in Rat Hippocampal Neurons. In J Biol Chem 2009 Jan 9 by Wen-Hua Zheng, Rami Quirion, et al..PMID: 18981172, , (2009)

[PMID:18981172](#)

et al., Glutamate acting on NMDA receptors attenuates IGF-1 receptor tyrosine phosphorylation and its survival signaling properties in rat hippocampal neurons. In J Biol Chem

on 2009 Jan 9 by Wen-Hua Zheng, Rami Quirion, et al..PMID:18981172, , (2009)

[PMID:18981172](#)

et al., T-cadherin modulates endothelial barrier function. In J Cell Physiol on 2010 Apr by Jingyan Han, Mikhail A Kutuzov, et al..PMID: 20039275, , (2010)

[PMID:20039275](#)

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el at., Cadmium-induced ER Stress and Inflammation Are Mediated Through C/EBP-DDIT3 Signaling in Human Bronchial Epithelial Cells. In *Exp Mol Med* on 2017 Sep by Jeeyoung Kim , Haengseok Song, et al.. PMID: 28860664, , (2017)

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el at., Choline Prevents Fetal Overgrowth and Normalizes Placental Fatty Acid and Glucose Metabolism in a Mouse Model of Maternal Obesity. In *J Nutr Biochem* on 2017 Nov by Juha Nam , Esther Greenwald, et al.. PMID: 28915389, , (2017)

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el at., H<sub>2</sub>O<sub>2</sub> treatment or serum deprivation induces autophagy and apoptosis in naked mole-rat skin fibroblasts by inhibiting the PI3K/Akt signaling pathway. In *Oncotarget* on 2016 Dec 20 by Shanmin Zhao, Li Li et al.. PMID:27863375, , (2016)

[PMID:27863375](#)

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el at., The combined anticancer of peanut skin procyanidins and resveratrol to CACO<sub>2</sub> • 2 colorectal cancer cells. In *Food Sci Nutr* on 2023 Aug 3 by Na Wang, Enguang Gao et al.. PMID: 37831732, , (2023)

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Tang XiYang, Zhang RunZe, Feng ZhiBo, Zhou YuLong, Du WeiGuang, Shu Chen, Shen Yang, Li MengChao, Cai JunChao, Yan XiaoLong, Ma Nan, Zhao JinBo et al., FGL1-mediated lymph node metastasis in stage T1 non-small cell lung cancer: therapeutic targeting, *Experimental Hematology & Oncology*, (2025)

[PMID:41024301](#)

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