

## AKT1/AKT2/AKT3(phospho-Tyr315/316/312) Antibody

Catalog No: #11501



Package Size: #11501-1 50ul #11501-2 100ul

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

## Description

Product Name	AKT1/AKT2/AKT3(phospho-Tyr315/316/312) 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/AKT2/AKT3 only when phosphorylated at tyrosine 315/316/312.
Immunogen Type	Peptide-KLH
Immunogen Description	Peptide sequence around phosphorylation site of tyrosine 315/316/312 (P-E-Y(p)-L-A) derived from Human AKT1/AKT2/AKT3.
Target Name	AKT1/AKT2/AKT3
Modification	Phospho
Other Names	RAC-PK-alpha; Protein kinase B;
Accession No.	Swiss-Prot: P31749 P31751 Q9Y243NCBI Protein: NP_001014431.1 NP_001617.1 NP_005456.1
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

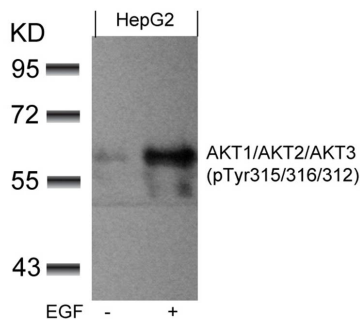
Predicted MW: 60kd

Western blotting: 1:500~1:1000

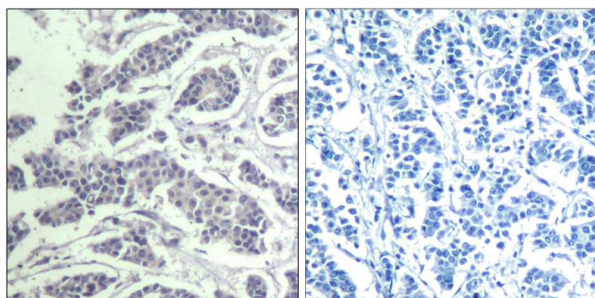
Immunohistochemistry: 1:50~1:100

Immunofluorescence: 1:100~1:200

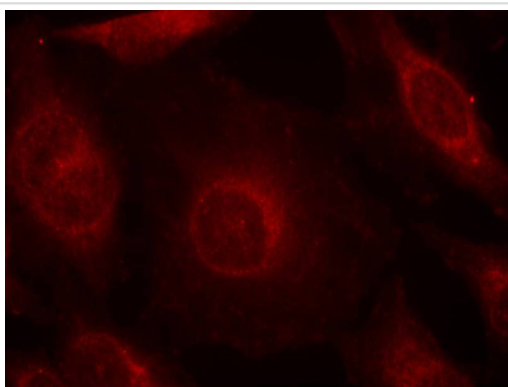
## Images



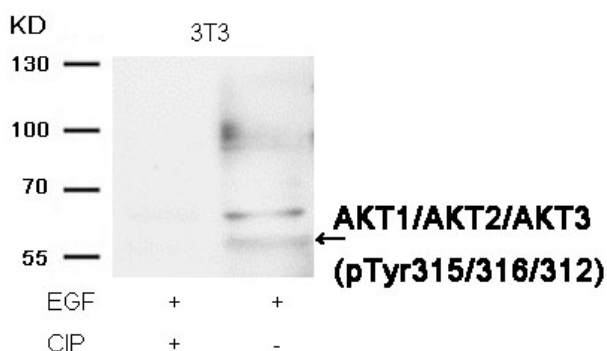
Western blot analysis of extracts from HepG2 cells untreated or treated with EGF using AKT1/AKT2/AKT3(phospho-Tyr315/316/312) Antibody #11501.



Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using AKT1/AKT2/AKT3(Phospho-Tyr315/316/312) Antibody #11501(left) or the same antibody preincubated with blocking peptide(right).



Immunofluorescence staining of methanol-fixed HeLa cells using AKT1/AKT2/AKT3(phospho-Tyr315/316/312) Antibody #11501.



Western blot analysis of extracts from 3T3 cells, treated with EGF or calf intestinal phosphatase (CIP), using AKT1/AKT2/AKT3 (phospho-Tyr315/316/312) Antibody #11501.

## 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. /General protein kinase capable of phosphorylating several known proteins. IGF-1 leads to the activation of AKT3, which may play a role in regulating cell survival. Capable of phosphorylating several known proteins.

Truncated isoform 2/PKB gamma 1 without the second serine phosphorylation site could still be stimulated but to a lesser extent.

Nelms K, et al. (1999) Annu Rev Immunol. 17:701-738.

Malabarba M G, et al. (1996) Biochem. J. 319:865-872.

Hou J, et al. (1994) Science. 265:1701-1706.

Quelle F W, et al. (1995) Mol Cell Biol. 15: 3336-3343.

## Published Papers

el at., Enhancement of anti-acne effect of *Scutellaria baicalensis* extract by fermentation with symbiotic fungus *Penicillium decumbens*. In J Biosci Bioeng

on 2020 Nov by Xiaojing Zhu, Yue Mao, et al..PMID: 32747300, , (2020)

[PMID:32747300](#)

el at., Exosomes derived from human mesenchymal stem cells promote gastric cancer cell growth and migration via the activation of the Akt pathway.In Mol Med Rep.On 2016 Oct by Gu H, Ji R et al..PMID:27513187, , (2016)

[PMID:27513187](#)

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