Product Datasheet

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

Catalog No: #11501

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

Orders: order@signalwayantibody.com
Support: 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 chromatogramphy using non-phosphopeptide.
Applications	WB IHC IF
Species Reactivity	Human;Mouse;Rat
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.
Conjugates	Unconjugated
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 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

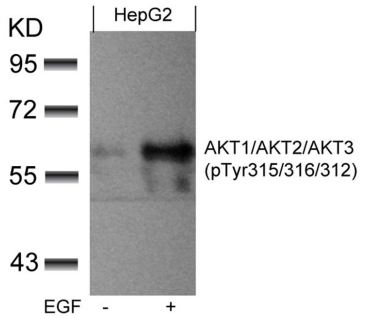
Predicted MW: 60kd

Western blotting: 1:500~1:1000

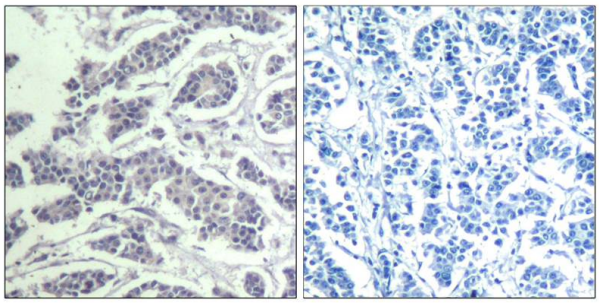
Immunohistochemistry: 1:50~1:100

Immunofluorescence: 1:100~1:200

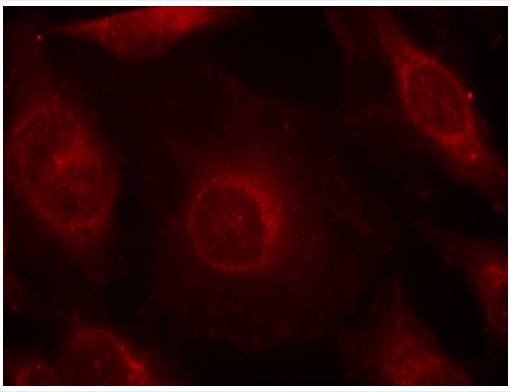
Images



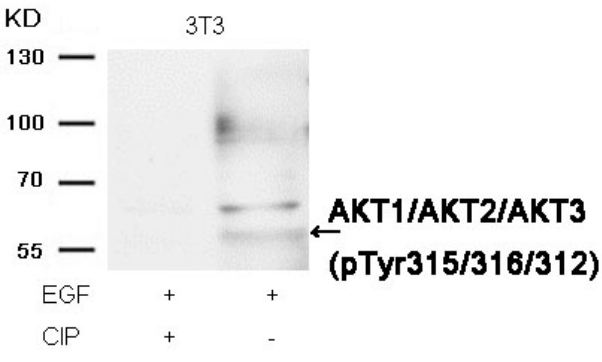
Western blot analysis of extracts from HepG2 cells untreated or treated with EGF using AKT1/AKT2/AKT3(phospho-Tyr315/316/312) Antibody #11501.



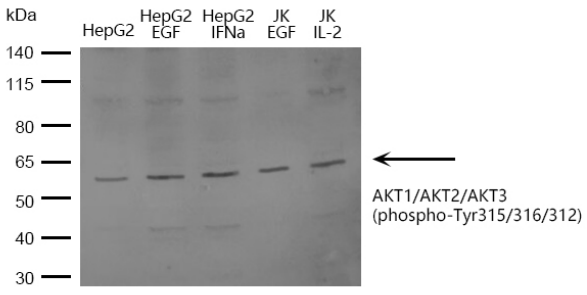
Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using AKT1/AKT2/AKT3(Phospho-Tyr315/316/312) Antibody #11501(left) or the same antibody preincubated with blocking peptide(right).



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.



Western blot analysis of extracts of various cell lines, using AKT1/AKT2/AKT3(phospho-Tyr315/316/312) Antibody

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., 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

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

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