

#11501

AKT1/AKT2/AKT3

(phospho-Tyr315/316/312)



Catalog: #11501-1 50µl
#11501-2 100µl

Orders: order@signalwayantibody.com

Support: tech@signalwayantibody.com

Storage: Store at -20°C/1 year

Web: www.signalwayantibody.com

Application	Species Reactivity	Source	Molecular Wt.
WB IHC IF	Human Mouse Rat	Rabbit Polyclonal Ab	60KD

Description: 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.

Specificity: The antibody detects endogenous level of AKT1/AKT2/AKT3 only when phosphorylated at tyrosine 315/316/312.

Immunogen: Peptide sequence around phosphorylation site of tyrosine 315/316/312 (P-E-Y(p)-L-A) derived from Human AKT1/AKT2/AKT3.

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.

Synonyms: RAC-PK-alpha Protein kinase B

Accession No.: Swiss-Prot#: P31749 P31751 Q9Y243 NCBI
Gene#: 207 208 10000
NCBI Protein#: NP_001014431.1 NP_001617.1
NP_005456.1

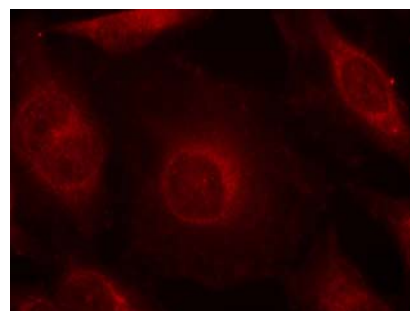
Background: General protein kinase capable of phosphorylating several known proteins. Phosphorylates TBC1D4. Signals downstream of phosphatidylinositol 3-kinase (PI3K) to mediate the effects of various growth factors such as platelet-derived growth factor (PDGF), epidermal growth factor (EGF), insulin 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.

References:

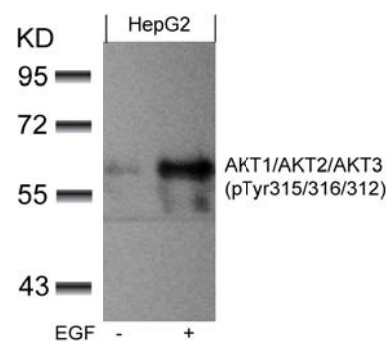
Nelms K, et al. (1999) Annu Rev Immunol. 17:701-738.
Malabarba M G, et al. (1996) Biochem. J. 319:865-872.
Hou J, et al. (1994) Science. 265:1701-1706.
Quelle F W, et al. (1995) Mol Cell Biol. 15: 3336-3343.

Recommended Dilutions:

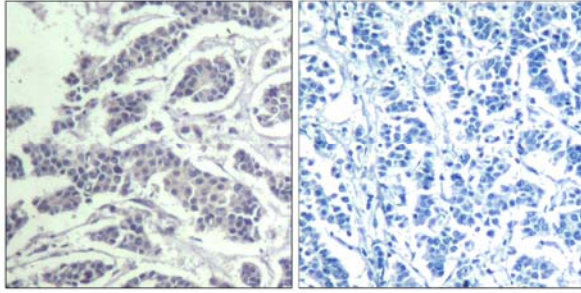
Western blotting 1:500~1:1000
Immunohistochemistry 1:50~1:100
Immunofluorescence 1:100~1:200



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



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).

Citation:

If you publish research using #11501 please [let us know](#).

Related Pathway: Akt, Insulin/Glucose, Jak/Stat, Cytoskeletal/Adhesion, Wnt/beta-catenin

Note: For western blotting, incubate membrane with diluted antibody in 5% nonfat milk, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.