

## 35-1301: Polyclonal Antibody to AKT1/AKT2/AKT3 (phospho-Tyr315/316/312)

<b>Clonality :</b>	Polyclonal
<b>Application :</b>	WB,IHC,IF
<b>Reactivity :</b>	Human,Mouse,Rat
<b>Gene :</b>	AKT1
<b>Gene ID :</b>	207
<b>Uniprot ID :</b>	P31749 /P31751 Q
<b>Format :</b>	Purified
<b>Alternative Name :</b>	RAC-PK-alpha, Protein kinase B
<b>Isotype :</b>	Rabbit IgG
<b>Immunogen Information :</b>	Peptide sequence around phosphorylation site of tyrosine 315/316/312 (P-E-Y(p)-L-A) derived from Human AKT1/AKT2/AKT3.

### Description

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.

### Product Info

<b>Amount :</b>	50 µl / 100 µl
<b>Content :</b>	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.
<b>Storage condition :</b>	Store the antibody at 4°C, stable for 6 months. For long-term storage, store at -20°C. Avoid repeated freeze and thaw cycles.

### Application Note

Predicted MW: 60kd, Western blotting: 1:500~1:1000, Immunohistochemistry: 1:50~1:100, Immunofluorescence: 1:100~1:200

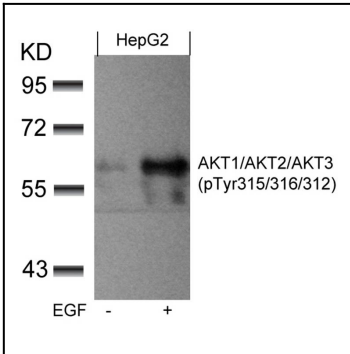


Figure 1: Western blot analysis of extracts from HepG2 cells untreated or treated with EGF using AKT1/AKT2/AKT3(phospho-Tyr315/316/312) Antibody 35-1301 .

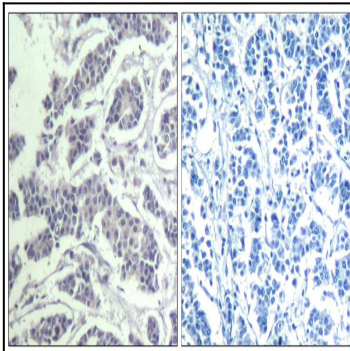


Figure 2: Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using AKT1/AKT2/AKT3(Phospho-Tyr315/316/312) Antibody 35-1301 (left) or the same antibody preincubated with blocking peptide(right).

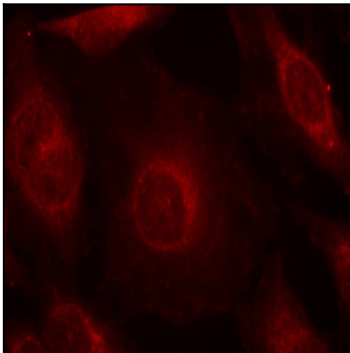


Figure 3: Immunofluorescence staining of methanol-fixed HeLa cells using AKT1/AKT2/AKT3(phospho-Tyr315/316/312) Antibody 35-1301 .

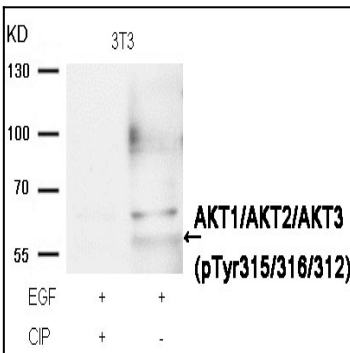


Figure 4: Western blot analysis of extracts from 3T3 cells, treated with EGF or calf intestinal phosphatase (CIP), using AKT1/AKT2/AKT3 (phospho-Tyr315/316/312) Antibody 35-1301 .