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

Clonality: Polyclonal Application: WB,IHC,IF

Reactivity: Human, Mouse, Rat

Gene : AKT1 **Gene ID :** 207

Uniprot ID: P31749 /P31751 Q

Format: Purified

Alternative Name: RAC-PK-alpha, Protein kinase B

Isotype: Rabbit IgG

Immunogen Information: 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

Amount: 50 μl / 100 μl

Content: 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 condition : 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: $1:500\sim1:1000$, Immunohistochemistry: $1:50\sim1:100$, Immunofluorescence: $1:100\sim1:200$

1:100~1:200



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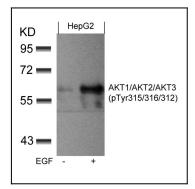


Figure 1: Western blot analysis of extracts from HepG2 cells untreated or treated with EGF using AKT1/AKT2/AKT3(phospho-Tyr315/316/312) Antibody 35-1301.

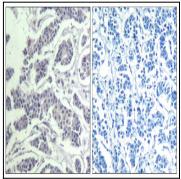


Figure 2: Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using AKT1/AKT2/AKT3(Phospho-Tyr315/316/312) Antibody 35-1301 (left) or the same antibody preincubated with blocking peptide(right).

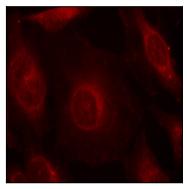


Figure 3: Immunofluorescence staining of methanol-fixed Hela cells using AKT1/AKT2/AKT3(phospho-Tyr315/316/312) Antibody 35-1301 .

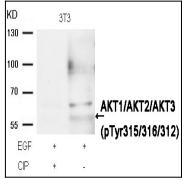


Figure 4: Western blot analysis of extracts from 3T3 cells, treated with EGF or calf intestinal phosphatase (CIP), using AKT1/AKT2/AKT3 (phospho-Tyr315/316/312) Antibody 35-1301.