

## Phospho-Pan-Akt (Ser473) Polyclonal Antibody

Catalog No. E-AB-20802

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

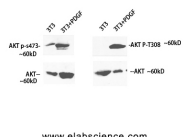
### Description

<b>Reactivity</b>	Human, Mouse, Rat
<b>Immunogen</b>	Synthesized peptide derived from human Akt around the phosphorylation site of Ser473
<b>Host</b>	Rabbit
<b>Isotype</b>	IgG
<b>Purification</b>	Affinity purification
<b>Conjugation</b>	Unconjugated
<b>Buffer</b>	PBS with 0.02% sodium azide, 0.5% protective protein and 50% glycerol, pH7.4

### Applications Recommended Dilution

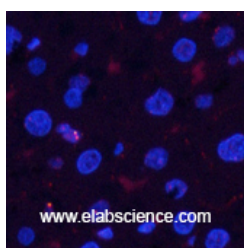
<b>WB</b>	1:500-1:2000
<b>IHC</b>	1:100-1:300
<b>IF</b>	1:50-1:200

### Data

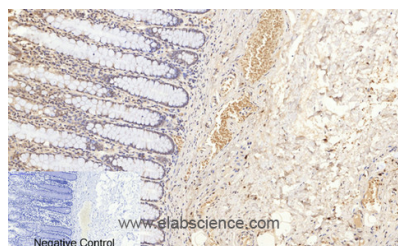


Western Blot analysis of 3T3 cells treated using Phospho-Pan-Akt (Ser473) Polyclonal Antibody at dilution of 1:1000

**Observed Mw:55kDa**  
**Calculated Mw:56kDa**



Immunofluorescence analysis of Rat liver tissue using Phospho-Pan-Akt (Ser473) Polyclonal Antibody at dilution of 1:200



Immunohistochemistry of paraffin-embedded Human colon tissue using Phospho-Pan-Akt (Ser473) Polyclonal Antibody at dilution of 1:200

### For Research Use Only

## Preparation & Storage

**Storage** Store at -20°C. Avoid freeze / thaw cycles.

## Background

Plays a role as a key modulator of the AKT-mTOR signaling pathway controlling the tempo of the process of newborn neurons integration during adult neurogenesis, including correct neuron positioning, dendritic development and synapse formation (By similarity). General protein kinase capable of phosphorylating several known proteins. Phosphorylates TBC1D4. Signals downstream of phosphatidylinositol 3-kinase (PI(3)K) 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. The activated form can suppress FoxO gene transcription and promote cell cycle progression. Essential for the SPATA13-mediated regulation of cell migration and adhesion assembly and disassembly.

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