

## Akt (pan) Rabbit pAb

CatalogNo: YT0185

### Key Features

#### Host Species

- Rabbit

#### Reactivity

- Human, Mouse, Rat, Chicken

#### Applications

- IF, WB, IHC, ELISA

#### MW

- 56kD (Observed)

#### Isotype

- IgG

### Storage

**Storage\*** -15°C to -25°C/1 year (Do not lower than -25°C)

**Formulation** Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

### Recommended Dilution Ratios

**IF 1:50-200**

**WB 1:500-1:2000**

**IHC 1:100-1:300**

**ELISA 1:40000**

**Not yet tested in other applications**

### Basic Information

**Clonality** Polyclonal

### Immunogen Information

**Immunogen** The antiserum was produced against synthesized peptide derived from human AKT1/2/3. AA range:281-330

**Specificity** Akt Polyclonal Antibody detects endogenous levels of Akt protein.

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## | Target Information

**Gene name** AKT1/AKT2/AKT3

**Protein Name** RAC-alpha serine/threonine-protein kinase;RAC-beta serine/threonine-protein kinase;RAC-gamma serine/threonine-protein kinase

Organism	Gene ID	UniProt ID
Human	<a href="#">207</a> ; <a href="#">208</a> ; <a href="#">10000</a> ;	<a href="#">P31749</a> ; <a href="#">P31751</a> ; <a href="#">Q9Y243</a> ;
Mouse	<a href="#">11651</a> ; <a href="#">11652</a> ; <a href="#">23797</a> ;	<a href="#">P31750</a> ;
Rat	<a href="#">24185</a> ; <a href="#">25233</a> ; <a href="#">29414</a> ;	<a href="#">P47196</a> ; <a href="#">P47197</a> ; <a href="#">Q63484</a> ;

**Cellular Localization** Cytoplasm . Nucleus . Cell membrane . Nucleus after activation by integrin-linked protein kinase 1 (ILK1) . Nuclear translocation is enhanced by interaction with TCL1A. Phosphorylation on Tyr-176 by TNK2 results in its localization to the cell membrane where it is targeted for further phosphorylations on Thr-308 and Ser-473 leading to its activation and the activated form translocates to the nucleus. Colocalizes with WDFY2 in intracellular vesicles (PubMed:16792529) . .

**Tissue specificity** Expressed in prostate cancer and levels increase from the normal to the malignant state (at protein level) . Expressed in all human cell types so far analyzed. The Tyr-176 phosphorylated form shows a significant increase in expression in breast cancers during the progressive stages i.e. normal to hyperplasia (ADH) , ductal carcinoma in situ (DCIS) , invasive ductal carcinoma (IDC) and lymph node metastatic (LNMM) stages.

**Function** 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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## | Validation Data

## | Contact information

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Please scan the QR code  
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**Akt (pan) Rabbit  
pAb**

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