# Akt (Phospho Thr308) (PT0722R) PT™ Rabbit mAb

CatalogNo: YM8531 Recombinant

## Key Features

Host Species
- Rabbit

Reactivity
- Human,Mouse,Rat,Drosophila

Applications
- WB,ICC/IF,IP,ELISA

MW
- 60kD (Calculated)

60kD (Observed)

Isotype
- IgG, Kappa

## Storage

| | |
|---|---|
| **Storage*** | -15°C to -25°C/1 year (Do not lower than -25°C) |
| **Formulation** | PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA |

## Recommended Dilution Ratios

**WB 1:1000-1:5000**
**ICC/IF 1:200-1:1000**
**ELISA 1:5000-1:20000**
**IP 1:50-1:200**

## Basic Information

| | |
|---|---|
| **Clonality** | Monoclonal |
| **Clone Number** | PT0722R |

## Immunogen Information

| | |
|---|---|
| **Immunogen** | The specific immunogen used to produce this antibody is proprietary information. |

**Specificity** Phospho-Akt (T308) Antibody detects endogenous levels of Akt protein only when phosphorylated at T308.The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):MKtFC

## 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

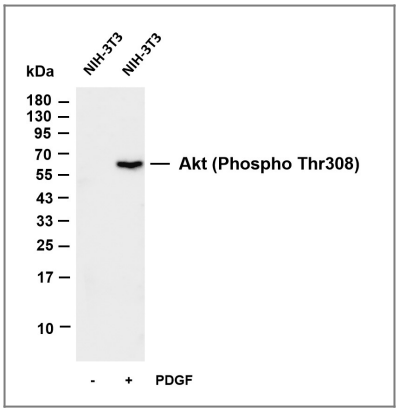
| Organism | Gene ID | UniProt ID |
|---|---|---|
| Human | 207; 208; 10000; | P31749; P31751; Q9Y243; |
| Mouse | 11651; 11652; 23797; | P31750; |
| Rat | 24185; 25233; 29414; | P47196; P47197; Q63484; |

**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) . .

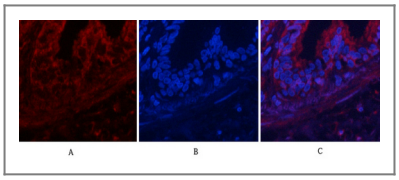
**Tissue specificity** Expressed in prostate cancer and levels increase from the normal to the malignant state (at protein level) . Expressed in all human cell types so far analyzed. The Tyr-176 phosphorylated form shows a significant increase in expression in breast cancers during the progressive stages 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.

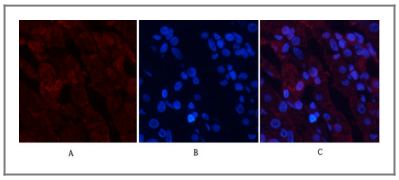
# Validation Data



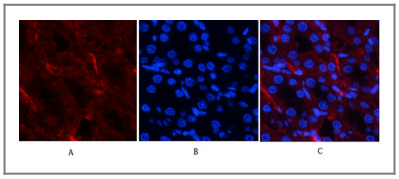

Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-Akt (Phospho Thr308) (PT0722R) (PT0722R) antibody. The HRP-conjugated Goat anti-Rabbit IgG (H + L) antibody was used to detect the antibody. Lane 1: NIH-3T3 Lane 2: NIH-3T3 was treated with PDGF (100 ng/mL) for 10 minutes Predicted band size: 60kDa Observed band size: 60kDa



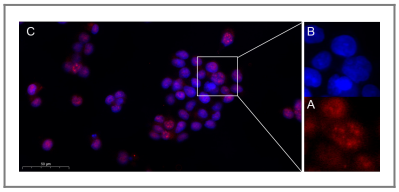

Immunofluorescence analysis of human-lung tissue. 1,Akt (phospho Thr308) Monoclonal Antibody (red) was diluted at 1:200 (4℃ overnight). 2, Cy3 labled Secondary antibody was diluted at 1:300 (room temperature, 50min).3, Picture B: DAPI (blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B



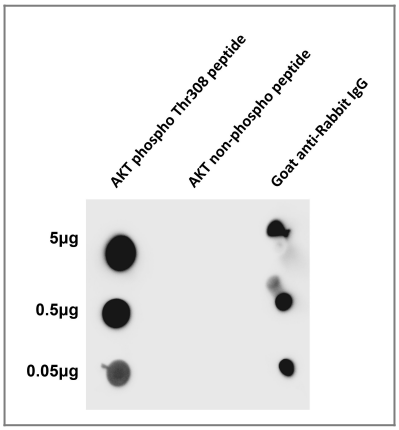

Immunofluorescence analysis of human-stomach tissue. 1,Akt (phospho Thr308) Monoclonal Antibody (red) was diluted at 1:200 (4℃ overnight). 2, Cy3 labled Secondary antibody was diluted at 1:300 (room temperature, 50min).3, Picture B: DAPI (blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B




Immunofluorescence analysis of rat-kidney tissue. 1,Akt (phospho Thr308) Monoclonal Antibody (red) was diluted at 1:200 (4℃ overnight). 2, Cy3 labled Secondary antibody was diluted at 1:300 (room temperature, 50min).3, Picture B: DAPI (blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B




Immunofluorescence analysis of HepG2 . Picture A: Akt (Phospho Thr308) (PT0722R) Rabbit mAb (red). Picture B: DAPI (blue). Picture C: Merge of A+B




The membrane was incubated with anti-Akt (Phospho Thr308) (PT0722R) antibody at a dilution of 1:2000. The HRP-conjugated Goat anti-Rabbit IgG (H + L) antibody was used to detect the antibody.

# Contact information

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Please scan the QR code to access additional product information:
**Akt (Phospho Thr308) (PT0722R) PT™ Rabbit mAb**

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