

## Product datasheet for **TA323436**

### AKT1 Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	WB: 1:500-1000, IHC: 1:50-100, IF: 1:100-200
Reactivity:	Human, Mouse, Rat
Modifications:	Phospho-specific
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Peptide sequence around phosphorylation site of threonine 450 (T-I-T(p)-P-P) derived from Human AKT1.
Formulation:	PBS pH7.3, 0.05% NaN <sub>3</sub> , 50% glycerol
Concentration:	lot specific
Purification:	Antigen affinity purification
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	60 kDa
Gene Name:	AKT serine/threonine kinase 1
Database Link:	<a href="#">NP_005154</a> <a href="#">Entrez Gene 11651 Mouse</a> <a href="#">Entrez Gene 24185 Rat</a> <a href="#">Entrez Gene 207 Human</a> <a href="#">P31749</a>



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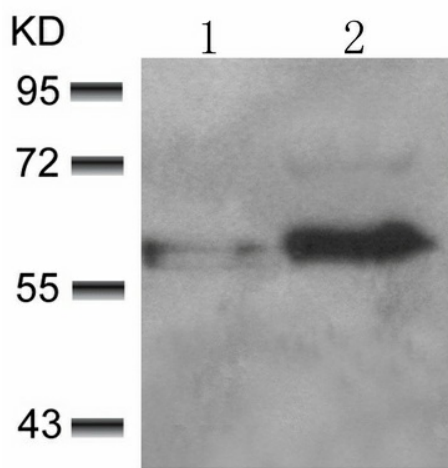
**Background:** General protein kinase capable of phosphorylating several known proteins. Phosphorylates TBC1D4. Signals downstream of phosphatidylinositol 3-kinase (PI3K) to mediate the effects of various growth factors such as platelet-derived growth factor (PDGF), epidermal growth factor (EGF), insulin 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.

**Synonyms:** AKT; CWS6; PKB; PKB-ALPHA; PRKBA; RAC; RAC-ALPHA

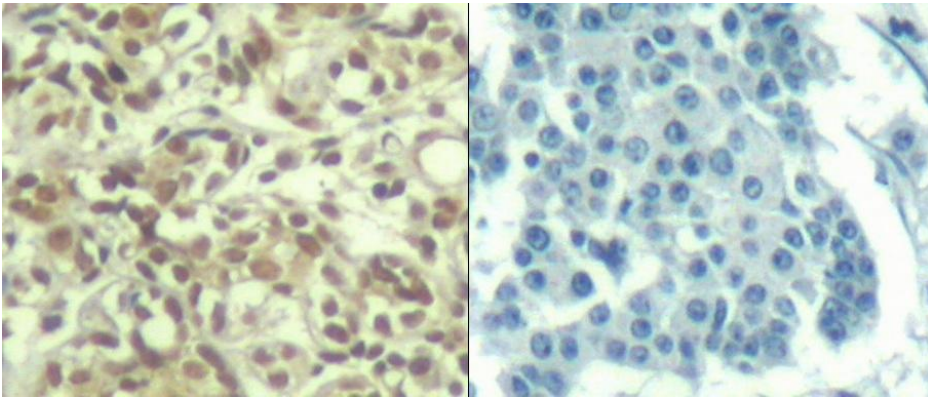
**Protein Families:** Druggable Genome, ES Cell Differentiation/IPS, Protein Kinase

**Protein Pathways:** Acute myeloid leukemia, Adipocytokine signaling pathway, Apoptosis, B cell receptor signaling pathway, Chemokine signaling pathway, Chronic myeloid leukemia, Colorectal cancer, Endometrial cancer, ErbB signaling pathway, Fc epsilon RI signaling pathway, Fc gamma R-mediated phagocytosis, Focal adhesion, Glioma, Insulin signaling pathway, Jak-STAT signaling pathway, MAPK signaling pathway, Melanoma, mTOR signaling pathway, Neurotrophin signaling pathway, Non-small cell lung cancer, Pancreatic cancer, Pathways in cancer, Progesterone-mediated oocyte maturation, Prostate cancer, Renal cell carcinoma, Small cell lung cancer, T cell receptor signaling pathway, Tight junction, Toll-like receptor signaling pathway, VEGF signaling pathway

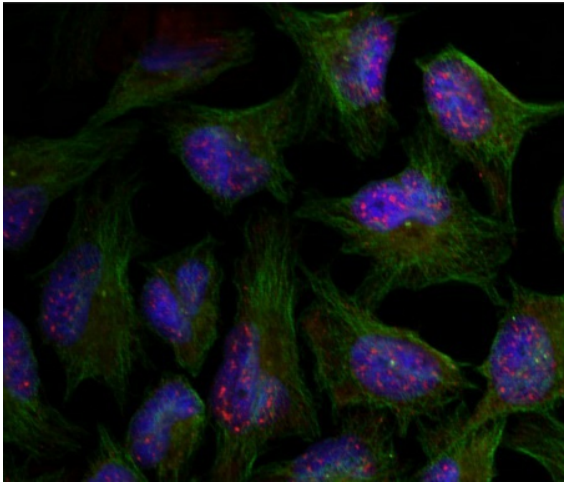
### Product images:



Predicted band size: 60 kDa. Positive control: 293 cells untreated or treated with EGF lysate. Recommended dilution: 1/ 500-1000. (Gel: 10%SDS-PAGE Lane 1: 293 cells untreated with EGF lysate Lane 2: 293 cells treated with EGF lysate Lysates: 30 ug per lane Primary antibody: 1/500 dilution Secondary antibody: Goat anti Rabbit IgG - H&L (HRP) at 1/10000 dilution Exposure time: 1 minute)



Predicted cell location: Cytoplasm; Nucleus; Cell membrane. Positive control: Human breast carcinoma tissue. Recommended dilution: 1/ 50-100 The image on the left is immunohistochemistry of paraffin-embedded human breast carcinoma tissue using AKT1 (phospho-Thr450) antibody at dilution 1/50, on the right is treated with the synthetic peptide. (Original magnification: x200)



Predicted cell location: Cytoplasm; Nucleus; Cell membrane. Positive control: HeLa cells. Recommended dilution: 1/ 100-200. The image is immunofluorescence of methanol-fixed HeLa cells using AKT1 (phospho-Thr450) antibody at dilution 1/100. (Original magnification: x200)