

Product datasheet for **TA319277**

AKT1 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	ELISA: 1:2,000 - 1:10,000, WB: 1:500 - 1:2,000, IHC: 1:500 - 1:2,000, IF: 1:100 - 1:1,000
Reactivity:	Human, Mouse, Rat, Chicken
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	AKT Antibody was produced from whole rabbit serum prepared by repeated immunizations with a synthetic peptide C-R-P-H-F-P-Q-F-S-Y-S-A-S-G-T-A corresponding to the C-terminus (460-480) of human, rat and mouse and chicken AKT proteins conjugated to KLH using maleimide. A residue of cysteine was added to the amino terminal end to facilitate coupling.
Formulation:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Concentration:	lot specific
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	AKT serine/threonine kinase 1
Database Link:	NP_001014431 Entrez Gene 11651 Mouse Entrez Gene 24185 Rat Entrez Gene 207 Human P31749
Synonyms:	AKT; CWS6; PKB; PKB-ALPHA; PRKBA; RAC; RAC-ALPHA



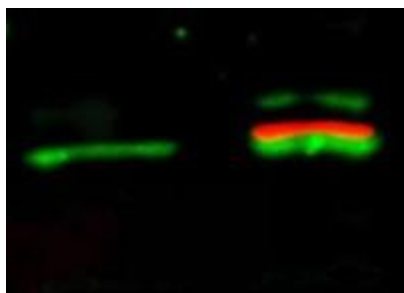
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Note: AKT Antibody detects AKT which is a component of the PI-3 kinase pathway and is activated by phosphorylation at Ser 473 and Thr 308. AKT is a cytoplasmic protein also known as Protein Kinase B (PKB) and rac (related to A and C kinases). AKT is a key regulator of many signal transduction pathways. AKT Exhibits tight control over cell proliferation and cell viability. Overexpression or inappropriate activation of AKT is noted in many types of cancer. AKT mediates many of the downstream events of PI 3-kinase (a lipid kinase activated by growth factors, cytokines and insulin). PI 3-kinase recruits AKT to the membrane, where it is activated by PDK1 phosphorylation. Once phosphorylated, AKT dissociates from the membrane and phosphorylates targets in the cytoplasm and the cell nucleus. AKT has two main roles: (i) inhibition of apoptosis; (ii) promotion of proliferation. Anti-AKT Antibody is ideal for investigators involved in Cell Signaling, Neuroscience, Signal Transduction research.

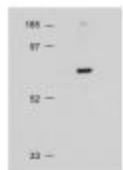
Protein Families: Druggable Genome, ES Cell Differentiation/IPS, Protein Kinase

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

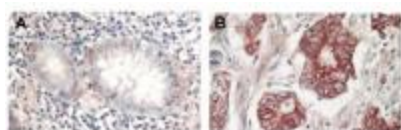
Product images:



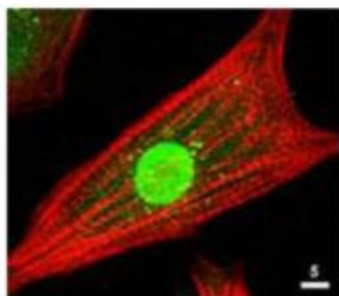
WB of detection of unphosphorylated and phosphorylated Rabbit Anti-AKT antibody. Lane 1: unstimulated NIH/3T3 lysates contain inactive unphosphorylated Akt1, green band. Lane 2: PDGF stimulated NIH/3T3 lysate contains both inactive (green band) and activated phosphorylated Akt1 (red band). Rabbit anti-Akt (pan) and mouse anti-Akt pS473 specific antibodies at 1:1000. Secondary antibody: DyLight™ 549 conjugated anti-rabbit IgG (green) and DyLight™ 649 conjugated anti-mouse IgG (red) at 1:10,000.



Western Blot of Rabbit Anti-AKT antibody. Lane 1: NIH/3T3 whole cell lysate. Load: 20 ug per lane. Primary antibody: AKT antibody at 1:500 for overnight at 4°C. Secondary antibody: HRP conjugated Gt-a-Rabbit IgG (611-103-122) at 1:10,000 preceded color development using Pierce Chemical's SuperSignal™ substrate. Block: MOPS buffer overnight at 4°C. Predicted/Observed size: 128 kDa, 128 kDa for AKT. Other band (s): none.



Immunohistochemistry of Rabbit Anti-AKT antibody. Tissue: (A) normal colon tissue, (B) colon tumor tissue. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: AKT antibody at 1:1,000 dilution for 1 h at RT. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: AKT is nuclear. Staining: AKT as precipitated red signal with hematoxylin purple nuclear counterstain.



Immunofluorescence Microscopy of Rabbit Anti-AKT Antibody. Tissue: neonatal rat cardiomyocytes. Fixation: 0.5% PFA. Antigen retrieval: not required. Primary antibody: AKT antibody at 1:80 dilution for 1 h at RT. Secondary antibody: Texas-red™ conjugated rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: AKT is nuclear. Staining: Anti-AKT staining appears green. Actin filaments are labeled red using a Texas-red™ conjugated phalloidin.