

Product datasheet for **TA319564**

AKT1 Mouse Monoclonal Antibody [Clone ID: 14E5.A2.B2.H9/E5]

Product data:

Product Type:	Primary Antibodies
Clone Name:	14E5.A2.B2.H9/E5
Applications:	ELISA, WB
Recommended Dilution:	ELISA: 1:2,000 - 1:10,000, WB: 1:1000, IHC: 20 ug/mL
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Immunogen:	Anti-AKT1 Antibody was produced by repeated immunizations with a synthetic peptide corresponding to internal residues of human AKT1 protein.
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 207 Human P31749
Synonyms:	AKT; CWS6; PKB; PKB-ALPHA; PRKBA; RAC; RAC-ALPHA



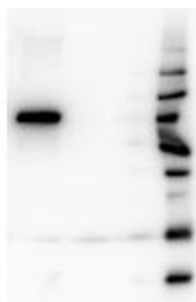
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Note: AKT1 Antibody detects AKT1 which is a component of the PI-3 kinase pathway and is activated by phosphorylation at Ser 473 and Thr 308. AKT is a cytoplasmic protein also known as Protein Kinase B (PKB) and rac (related to A and C kinases). AKT 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-AKT1 Antibody is ideal for investigators involved in Cell Signaling, Neuroscience and Signal Transduction research.

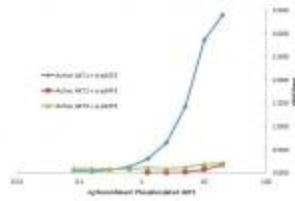
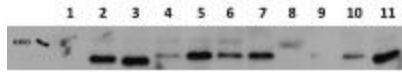
Protein Families: Druggable Genome, ES Cell Differentiation/IPS, Protein Kinase

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:



Western Blot of Mouse anti-AKT1 antibody. Lane 1: GST Tagged recombinant AKT1. Lane 2: GST Tagged recombinant AKT2. Lane 3: GST Tagged recombinant AKT3. Load: 25 ng per lane. Primary antibody: AKT1 antibody at 1:1,000 for overnight at 4°C. Secondary antibody: Peroxidase Rabbit secondary antibody at 1:40,000 for 30 min at RT. Block: MB-070 for 30 min at RT. Predicted/Observed size: 78 kDa for AKT2. Other band (s): none.



Western Blot of Mouse anti-AKT1 antibody. Lane 1: AKT1 Null. Lane 2: WT. Lane 3: MEF #1. Lane 4 : A549. Lane 5: Calu-1. Lane 6: PC-3. Lane 7: HepG2. Lane 8: Jurkat. Lane 9: SKOV3. Lane 10: 293T. Lane 11: C2C12. Load: 20 ug per lane. Primary antibody: AKT1 antibody at 1:1,000 for overnight at 4°C. Secondary antibody: Peroxidase Rabbit secondary antibody at 1:40,000 for 30 min at RT. Block: MB-070 for 30 min at RT. Predicted/Observed size: 56 kDa for AKT1. Other band (s): none.

Plate was coated with monoclonal anti AKT1 antibody (capture antibody) followed by incubation with recombinant AKT1, AKT2, AKT3 proteins. Binding was detected with biotinylated monoclonal anti AKT pS473. The signal shows specificity of the monoclonal anti-AKT1 antibody to recombinant isoform AKT1 protein and not the isoform 2 and 3