

Product datasheet for **TA319563**

AKT1 Mouse Monoclonal Antibody [Clone ID: 17F6.B11]

Product data:

Product Type:	Primary Antibodies
Clone Name:	17F6.B11
Applications:	ELISA, IHC, WB
Recommended Dilution:	ELISA: 1:20,000, WB: 1:500-1:3,000, IHC: 20 ug/mL, IF: 1:500-1:3,000
Reactivity:	Human, Mouse, Rat, Monkey
Host:	Mouse
Clonality:	Monoclonal
Immunogen:	Anti-AKT pS473 (MOUSE) Monoclonal Antibody was produced by repeated immunizations with a synthetic peptide corresponding to residues surrounding S473 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 11651 Mouse Entrez Gene 24185 Rat Entrez Gene 697747 Monkey Entrez Gene 207 Human P31749
Synonyms:	AKT; CWS6; PKB; PKB-ALPHA; PRKBA; RAC; RAC-ALPHA



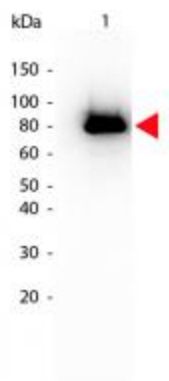
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Note: AKT phospho 473 is a component of the PI-3 kinase pathway and is activated by phosphorylation at Ser 473 and Thr 308. AKT is a cytoplasmic protein also known as AKT1, Protein Kinase B (PKB) and rac (related to A and C kinases). AKT is a key regulator 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 pS473 (MOUSE) Monoclonal Antibody is ideal for investigators involved in Cell Signaling, Cancer, Neuroscience, Signal Transduction research.

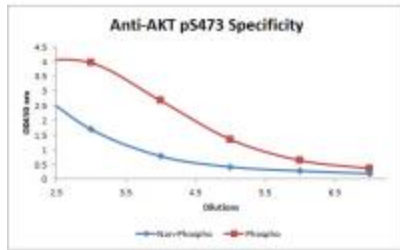
Protein Families: Druggable Genome, ES Cell Differentiation/IPS, Protein Kinase

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

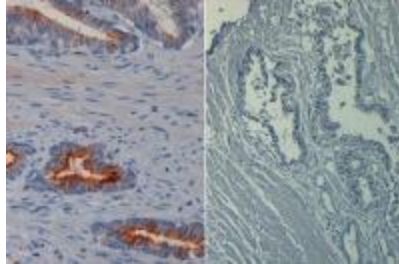
Product images:



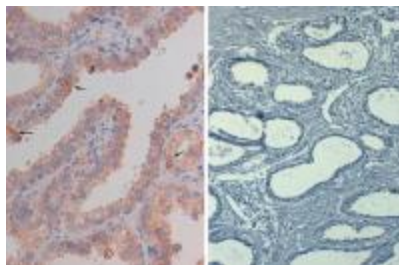
Western Blot of Mouse anti-Akt phospho S473 Biotin Conjugated antibody. Lane 1: GST tagged AKT1 active recombinant protein. Lane 2: none. Load: 25 ng per lane. Primary antibody: Akt phospho S473 Biotin Conjugated antibody at 1:1,000 for overnight at 4°C. Secondary antibody: HRP Streptavidin secondary antibody at 1:40,000 for 30 min at RT. Block: MB-070 for 30 min at RT. Predicted/Observed size: 79 kDa, 79 kDa for Akt phospho S473. Other band (s): none



ELISA of Mouse anti-Akt phospho S473 Biotin Conjugated antibody. Antigen: BSA conjugates of Akt phospho S473 and AKT non-phospho S473. Coating amount: 0.1 ug per well. Primary antibody: Akt phospho S473 Biotin Conjugated antibody at 5 ug/mL. Dilution series: 3-fold. Mid-point concentration: 5 ng/mL Akt phospho S473 Biotin Conjugated antibody. Secondary antibody: Peroxidase streptavidin secondary antibody at 1:10,000. Substrate: TMB (p/n TMBE-0100)



Immunohistochemistry of mouse anti AKT phospho S473 biotin conjugated at 40X (left) with negative control (right) Tissue: prostate Fixation: FFPE buffered formalin 10% conc Antigen retrieval: Heat, Citrate pH 6.2. Pressure Cooker Primary antibody: 20 ug/mL for 1 h at RT Secondary antibody: Streptavidin Conj. HRP 10 ug/ml Localization: nuclear and occasionally cytoplasmic Staining: antibody as precipitated red signal with a hematoxylin purple nuclear counterstain.



Immunohistochemistry of mouse Anti-AKT pS473 (MOUSE) Biotin Conjugated at 40X Tissue: prostate Fixation: FFPE buffered formalin 10% conc Antigen retrieval: Heat, Citrate pH 6.2. Pressure Cooker (pH 9 shown on right as negative control) Primary antibody: 20 ug/mL for 1 h at RT Secondary antibody: Streptavidin Conj. HRP 10 ug/ml Localization: nuclear and occasionally cytoplasmic Staining: antibody as precipitated red signal with a hematoxylin purple nuclear counterstain.