

## Product datasheet for **TA319558**

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

#### **Product data:**

<b>Product Type:</b>	Primary Antibodies
<b>Clone Name:</b>	17F6.B11
<b>Applications:</b>	IF, WB
<b>Recommended Dilution:</b>	ELISA: 1:20,000, WB: >1:10,000, IF: >1:5,000, ELISA: >1:20,000
<b>Reactivity:</b>	Human, Mouse, Rat, Monkey
<b>Host:</b>	Mouse
<b>Clonality:</b>	Monoclonal
<b>Immunogen:</b>	Akt phospho S473 ATTO594 Conjugated Antibody was produced by repeated immunizations with a synthetic peptide corresponding to residues surrounding S473 of human AKT1 protein.
<b>Formulation:</b>	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
<b>Concentration:</b>	lot specific
<b>Conjugation:</b>	ATTO 655
<b>Storage:</b>	Store at -20°C as received.
<b>Stability:</b>	Stable for 12 months from date of receipt.
<b>Gene Name:</b>	AKT serine/threonine kinase 1
<b>Database Link:</b>	<a href="#">NP_001014431</a> <a href="#">Entrez Gene 11651 Mouse</a> <a href="#">Entrez Gene 24185 Rat</a> <a href="#">Entrez Gene 697747 Monkey</a> <a href="#">Entrez Gene 207 Human P31749</a>
<b>Synonyms:</b>	AKT; CWS6; PKB; PKB-ALPHA; PRKBA; RAC; RAC-ALPHA



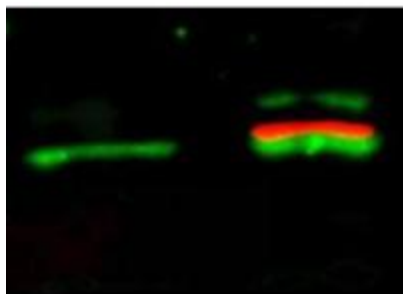
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**Note:** Anti-AKT antibody detects AKT which is a component of the PI-3 kinase pathway and is activated by phosphorylation at Ser 473 and Thr 308. AKT is a cytoplasmic protein also known as AKT1, Protein Kinase B (PKB) and rac (related to A and C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

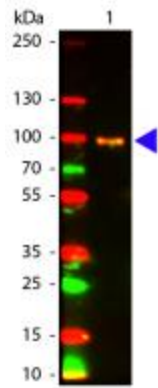
**Protein Families:** Druggable Genome, ES Cell Differentiation/IPS, Protein Kinase

**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

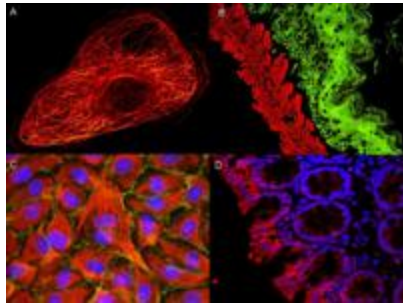
### Product images:



WB of Mouse Anti-Akt pS473 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). Load: 10 ug per lane. Primary antibody: rabbit anti-Akt (pan) and mouse anti-Akt pS473 antibodies at 1:400. Secondary antibody: DyLight™ 549 conjugated anti-rabbit IgG (green) and DyLight™ 649 conjugated anti-mouse IgG (red) at 1:10,000.



Western Blot of Mouse anti-AKT pS473 antibody Atto 594 Conjugated. Lane 1: GST Tagged AKT 1 Active Recombinant Protein. Lane 2: None. Load: 25 ng per lane. Primary antibody: None. Secondary antibody: Atto 594 mouse secondary antibody at 1:1,000 for 60 min at RT. Block: MB-070 for 30 min at RT. Predicted/Observed size: ~100 kDa, ~100 kDa for AKT pS473. Other band (s): None.



ATTO dyes can be used for multicolor IF. A. Tubulin in PtK2- male Rat Kangaroo Kidney Epithelial Cells with ATTO 532 labeled secondary antibody. B. Muscle alpha-actin with ATTO 488 anti-mouse IgG (green) while Cytokeratin with polyclonal rabbit anti-cytokeratin and ATTO 647N anti-rabbit IgG (red). C. HUVEC (Human umbilical vein endothelial cells with anti-Vimentin-ATTO 532 (green), anti-E-Cadherin-ATTO 655 (red) and DAPI (blue). D. Rat colon sections with Anti-Aquaporin 3-ATTO 594 antibody.