

Product datasheet for **TA319559**

AKT1 Mouse Monoclonal Antibody [Clone ID: 18F3.H11]

Product data:

Product Type:	Primary Antibodies
Clone Name:	18F3.H11
Applications:	IHC, WB
Recommended Dilution:	ELISA: 1:20,000, WB: 1:500 - 1:3,000, IHC: 20 ug/ml
Reactivity:	Human, Mouse, Rat, Monkey
Host:	Mouse
Clonality:	Monoclonal
Immunogen:	Anti-AKT pT308 monoclonal antibody was produced by repeated immunizations with a synthetic peptide corresponding to residues surrounding T308 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: Akt1 pT308 antibody detects phosphorylated Akt. AKT is involved in cellular survival pathways, by inhibiting apoptotic processes. Akt is also able to induce protein synthesis pathways, and is therefore a key signaling protein in the cellular pathways that lead to skeletal muscle hypertrophy, and general tissue growth. AKT 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 with 3 isoforms known as AKT1, AKT2, AKT3. AKT is 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 pT308 monoclonal antibody is ideal for investigators involved in Cancer, Cell Signaling, Neuroscience, Signal Transduction research.

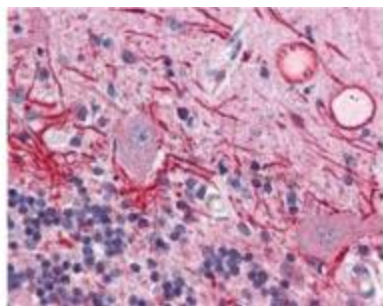
Protein Families: Druggable Genome, ES Cell Differentiation/IPS, Protein Kinase

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 Mouse anti-AKT pT308 antibody. Lane 1: non-phosphorylated AKT in untreated cells. Lane 2: phosphorylated AKT on PDGF stimulated NIH/3T3 cell lysates. Load: 15 ug per lane. Primary antibody: AKT pT308 antibody at a 1:4,000 dilution. Secondary antibody: peroxidase conjugated Gt-a-Mouse IgG (Fc) (p/n 610-1303) was used at a 1:40,000 dilution for 1 h at 4°C. Block: 3% BSA (p/n BSA-30) in TBS for 30 min at RT.



IHC of Mouse anti-AKT pT308 antibody. Tissue: human brain cerebellum tissue (40X). Fixation: formalin fixed paraffin embedded. Primary antibody: AKT pT308 antibody at 20 ug/mL for 1 h at RT. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: staining of Purkinje neurons and cell processes in the cerebellum, cytosolic as well as occasionally nuclear. Staining: AKT pT308 as precipitated red signal with hematoxylin purple nuclear counterstain.