

Product datasheet for **TA319275**

AKT1 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	ELISA: 1:15,000 - 1:60,000, WB: 1:200 - 1:1000, IHC: 1:100 - 1:500
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	This whole rabbit serum was prepared by repeated immunizations with a synthetic peptide corresponding to the C-terminus aa 460-480 of human, mouse, rat and chicken AKT proteins conjugated to KLH.
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



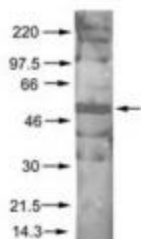
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Note: AKT is a component of the PI-3 kinase pathway and is activated by phosphorylation at Ser 473 and Thr 308. AKT is a cytoplasmic protein also known as AKT1, Protein Kinase B (PKB) and rac (related to A and C kinases). AKT is a key regulator of 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 phos-phorylated, 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.

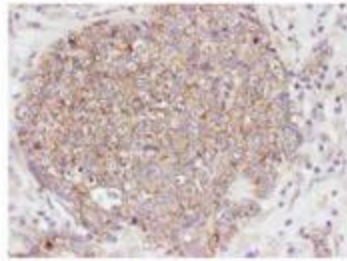
Protein Families: Druggable Genome, ES Cell Differentiation/IPS, Protein Kinase

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

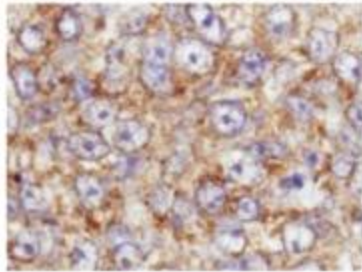
Product images:



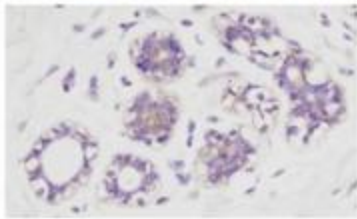
Western Blot of Rabbit anti-AKT pS473 antibody. Lane 1: nuclear extract from cells infected with adenovirus expressing nuclear-targeted AKT kinase. Load: 35 ug per lane. Primary antibody: AKT pS473 antibody at 1:200 dilution for overnight at 4°C. Secondary antibody: IRDye800™ rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: ~56 kDa for AKT pS473. Other band (s): unspecific.



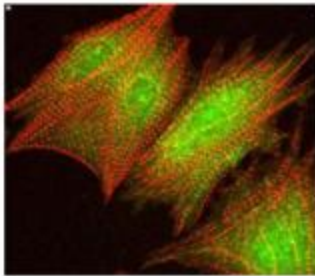
Immunohistochemistry of Rabbit Anti-Akt pS473 antibody. Tissue: human breast carcinoma. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: Akt pS473 antibody at 100 dilution for 1 h at RT. Secondary antibody: Dako's Techmate streptavidin-biotin reagents at 1:10,000 for 45 min at RT. Localization: Akt pS473 is nuclear and occasionally cytoplasmic.



Immunohistochemistry at higher magnification of Rabbit Anti-Akt pS473 antibody. Tissue: human breast carcinoma. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: Akt pS473 antibody at 100 dilution for 1 h at RT. Secondary antibody: Dako's Techmate streptavidin-biotin reagents at 1:10,000 for 45 min at RT. Localization: Akt pS473 is nuclear and occasionally cytoplasmic.



Immunohistochemistry of Rabbit anti-AKT pS473 antibody. Tissue: human breast carcinoma. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: AKT pS473 antibody at 1:100 for 1 h at RT. Secondary antibody: Dako's Techmate streptavidin-biotin reagents at 1:10,000 for 45 min at RT. Localization: AKT pS473 is nuclear and occasionally cytoplasmic.



IF of Rabbit anti-AKT pS473 antibody. Tissue: cardiomyocytes infected with adenovirus expressing with wild-type AKT. Fixation: 0.5% PFA. Antigen retrieval: not required. Primary antibody: AKT pS473 antibody at 1:40 for 1 h at RT. Secondary antibody: texas-red conjugated rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: AKT pS473 is nuclear. Staining: AKT pS473 as green fluorescent signal with texas-red conjugated phalloidin (red) to label filamentous actin.