

Product datasheet for **TA336476**

AKT1 Mouse Monoclonal Antibody [Clone ID: 104A282]

Product data:

Product Type:	Primary Antibodies
Clone Name:	104A282
Applications:	IHC, WB
Recommended Dilution:	Western Blot, Immunohistochemistry-Paraffin: 1:200 - 1:250, Immunohistochemistry: 1:200 - 1:250, Immunohistochemistry-Frozen
Reactivity:	Human, Mouse
Host:	Mouse
Isotype:	IgG1, kappa
Clonality:	Monoclonal
Immunogen:	This monoclonal antibody was raised against a synthetic peptide containing phosphorylated serines at amino acid residues 473 of human Akt1.
Formulation:	PBS containing 0.05% BSA, 0.05% Sodium Azide. Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Concentration:	lot specific
Purification:	Protein G purified
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_005154 Entrez Gene 11651 Mouse Entrez Gene 207 Human P31749

[View online »](#)

Background:

Akt, protein kinase B (PKB), is a serine/threonine kinase which is involved in many cellular signaling pathways and acts as a transducer of many functions initiated by growth factor receptors that activate phosphatidylinositol 3-kinase (PI 3-kinase). The major activity of Akt/PKB is to mediate cell survival. Akt/PKB is also believed to be a critical factor in the genesis of cancer as the tumor suppressor PTEN was found to antagonize PI-3 kinase and Akt/PKB kinase activity. Akt/PKB phosphorylation is critical for its activity. The major phosphorylation sites required for Akt activation have been identified as threonine 308 and serine 473. Serine 473 is phosphorylated by MAPKAP kinase 2.

Synonyms:

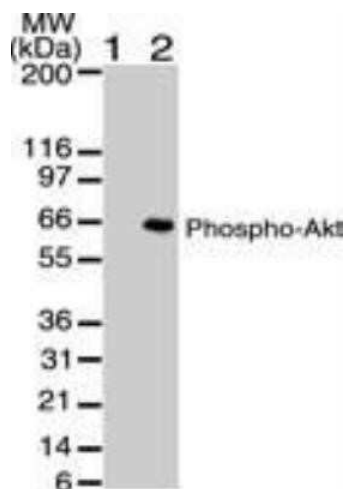
AKT; CWS6; PKB; PKB-ALPHA; PRKBA; RAC; RAC-ALPHA

Protein Families:

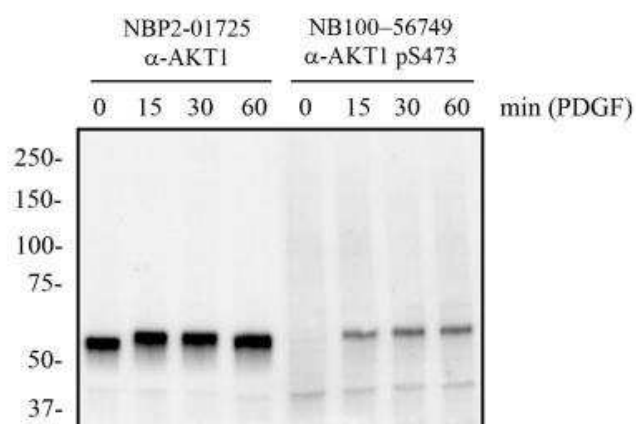
Druggable Genome, ES Cell Differentiation/IPS, Protein Kinase

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: AKT1 [p Ser473] Antibody (104A282) TA336476 - WB of phospho AKT using phospho AKT antibody at 2 ug/mL against untreated (lane 1) and PDGF treated (lane 2) NIH-3T3 lysate. HRP conjugated secondary antibody and ECL substrate solution were used for this test. Image using the Azide and BSA Free form of this antibody.



Western Blot: AKT1 [p Ser473] Antibody (104A282) TA336476 - Total protein from mouse 3T3 cells treated with and without PDGF (50 ng/mL) for the indicated times was separated on a 7.5% gel by SDS-PAGE, transferred to PVDF membrane and blocked in 5% non-fat milk in TBST. The membrane was probed with 2.0 ug/mL anti-AKT1 (NBP2-01725) and 2 ug/mL pS473 AKT1 in 1% BSA in TBST and detected with an anti-mouse HRP secondary antibody using chemiluminescence. Note the detection of phosphorylated AKT1 in response to PDGF treatment compared to total AKT1 protein.