

Product datasheet for **TA346875**

AKT1 Mouse Monoclonal Antibody [Clone ID: 2A4-D4-D11]

Product data:

Product Type:	Primary Antibodies
Clone Name:	2A4-D4-D11
Applications:	WB
Recommended Dilution:	WB: 1:1000
Reactivity:	Mouse, Rat
Host:	Mouse
Isotype:	IgG2b
Clonality:	Monoclonal
Immunogen:	The immunogen for AKT antibody: purified recombinant human AKT1 protein fragments expressed in E.coli.
Formulation:	Purified mouse monoclonal in buffer containing 0.1M Tris-Glycine (pH 7.4, 150 mM NaCl) with 0.02% sodium azide, 50% glycerol
Purification:	Affinity purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	60 kDa
Gene Name:	AKT serine/threonine kinase 1
Database Link:	NP_001014432 Entrez Gene 11651 Mouse Entrez Gene 24185 Rat P31749

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Background:

Akt1 is involved in cellular survival pathways, by inhibiting apoptotic processes. Akt1 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. Since it can block apoptosis, and thereby promote cell survival, Akt1 has been implicated as a major factor in many types of cancer. Akt (now also called Akt1) was originally identified as the oncogene in the transforming retrovirus, AKT8. Akt2 is an important signaling molecule in the Insulin signaling pathway. It is required to induce glucose transport. In a mouse which is for Akt1 but normal for Akt2, glucose homeostasis is unperturbed, but the animals are smaller, consistent with a role for Akt1 in growth. In contrast, mice which do not have Akt2, but have normal Akt1, have mild growth deficiency and display a diabetic phenotype (insulin resistance), again consistent with the idea that Akt2 is more specific for the insulin receptor signaling pathway. The role of Akt3 is less clear, though it appears to be predominantly expressed in the brain. It has been reported that mice lacking Akt3 have small brains.

Synonyms:

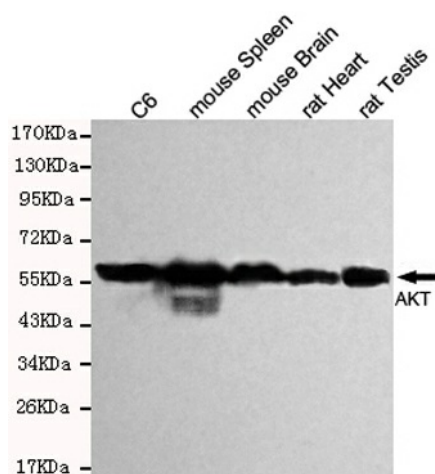
AKT; CWS6; PKB; PKB-ALPHA; PRKBA; RAC; RAC-ALPHA

Protein Families:

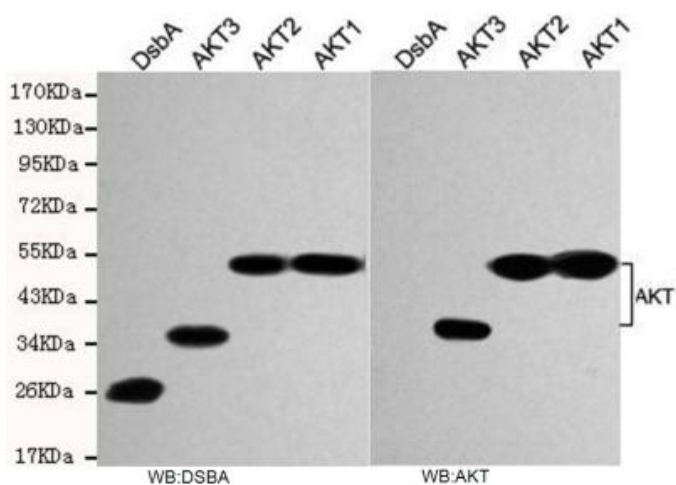
Druggable Genome, ES Cell Differentiation/IPS, Protein Kinase

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 detection of total AKT in rat heart, rat testis, mouse brain, mouse spleen and C6 cell lysates and using AKT (pan) mouse mAb (1:1000 diluted). Predicted band size: 60KDa. Observed band size: 60KDa.



L:Western blot detection of DSBA in AKT1, AKT2, AKT3 and DSBA recombinant antigen fragments the same sample quality, and using DSBA mouse mAb (1:1000 diluted).R:Western blot detection of AKT in AKT1, AKT2 and AKT3 recombinant antigen fragments and using AKT (pan) mouse mAb (1:1000 diluted).