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Product datasheet for AM20407SU-N

AKT2 Mouse Monoclonal Antibody [Clone ID: 1B6]

Product data:

Product Type:	Primary Antibodies
Clone Name:	1B6
Applications:	ELISA, IF, IHC, WB
Recommended Dilution:	**ELISA:** 1/10000. **Immunofluorescence:** 1/200 - 1/1000. **Immunohistochemistry on Paraffin Sections:** 1/100. **Western Blot:** 1/500 - 1/2000.
Reactivity:	Human, Monkey, Rat
Host:	Mouse
Isotype:	IgG2b
Clonality:	Monoclonal
Immunogen:	Recombinant AKT2 protein.
Specificity:	Recognizes V-Akt Murine Thymoma Viral Oncogene Homolog 2 (AKT2).
Formulation:	State: Ascites State: Ascites fluid containing 0.03% Sodium Azide as preservative.
Conjugation:	Unconjugated
Storage:	Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	AKT serine/threonine kinase 2
Database Link:	Entrez Gene 25233 Rat Entrez Gene 700591 Monkey Entrez Gene 208 Human P31751

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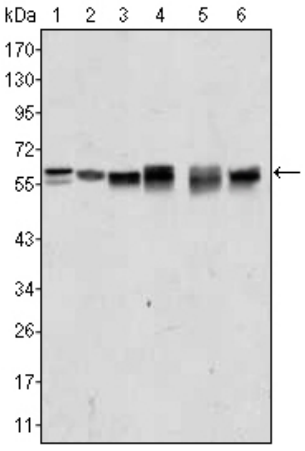
Background: Akt, protein kinase B (PKB), is a serine/threonine kinase, which is involved in many cellular signaling pathways and acts as a transducer of many functions initiated by growth factor receptors that activate phosphatidylinositol 3-kinase (PI 3-kinase). Akt2 is amplified and overexpressed in some human cancers. AKT2 encodes a RAC/AKT-type protein kinase that contains a N-terminal pleckstrin-homology (PH) domain and a central catalytic domain closely related to both cAMP-dependent protein kinase and protein kinase C. The protein is a member of PI3K-mediated signalling pathways associated with the regulation of proliferation, survival, protein synthesis, and metabolism. It is activated by a variety of growth factors. AKT2 has been shown to be transcriptionally regulated by MyoD and to activate MyoD-myocyte enhancer binding factor-2 (MEF2) transactivation activity during muscle differentiation. Glycogen synthase kinase 3 (GSK-3) also has been shown to be a downstream target of AKT2. The AKT2 gene is one of the human homologues of v-akt, the transduced oncogene of the AKT8 virus, which induces lymphomas in mice. It has been implicated in breast, ovarian, and pancreatic cancers.

Synonyms: RAC-PK-beta, Protein kinase Akt-2, Protein kinase B beta

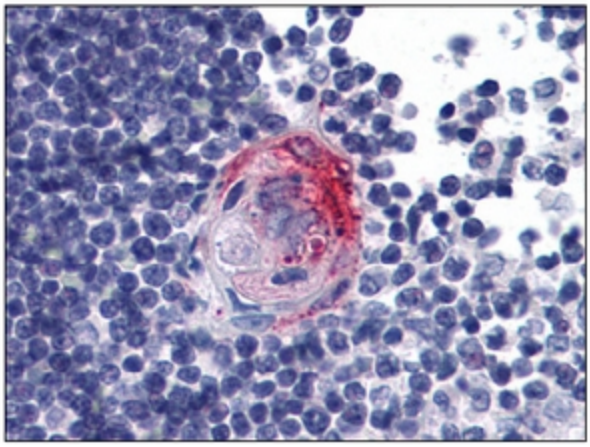
Protein Families: Druggable Genome, ES Cell Differentiation/IPS, Protein Kinase

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

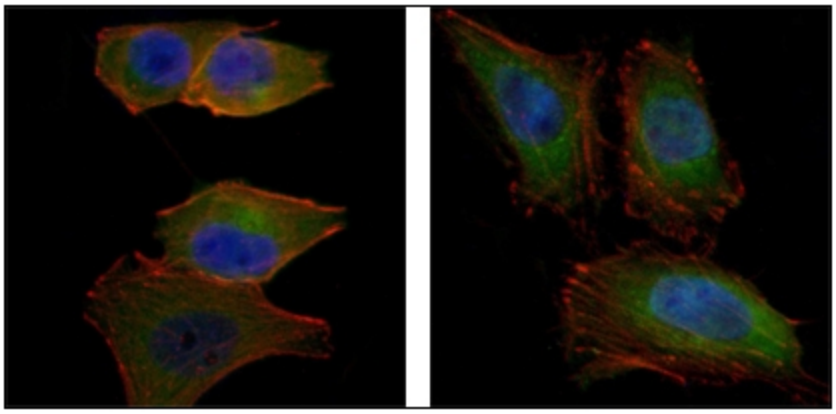
Product images:



Western blot analysis using Monoclonal AKT2 antibody against A431 (Lane 1), Jurkat (Lane 2), HEK293 (Lane 3), A549 (Lane 4), MCF-7 (Lane 5) and PC-12 (Lane 6) cell lysate.



Human Thymus: Formalin-Fixed, Paraffin-Embedded (FFPE)



Immunofluorescence analysis of PANC-1 (Left) and Hela (Right) cells using Monoclonal AKT2 antibody (Green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.