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Product datasheet for AP22624SU-N

AKT1 (C-term) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, IF, IHC, IP, WB
Recommended Dilution:	**ELISA:** 1/2000 - 1/10000. **Immunofluorescence:** 1/100 - 1/1000. **Immunohistochemistry on Paraffin Sections:** 1/100. **Immunoprecipitation**. **Western Blot:** 1/500 - 1/2000.
Reactivity:	Chicken, Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Synthetic peptide -KLH conjugated corresponding to the C-terminus (460-480) of Human, Rat, Mouse and Chicken AKT proteins conjugated to KLH using maleimide.
Specificity:	Recognizes AKT (AKT1/AKT2/AKT3). The sequence used to generate this antibody, has a high degree of similarity to regions found in AKT1, AKT2 and AKT3, and thus may cross react with all of these proteins.
Formulation:	0.02 M potassium phosphate, 0.15 M Sodium Chloride, pH 7.2, 0.09% Sodium Azide State: Serum State: Liquid Ig fraction
Concentration:	lot specific
Purification:	Delipidation and Defibrination
Conjugation:	Unconjugated
Storage:	Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Dilute only prior to immediate use. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	AKT serine/threonine kinase 1
Database Link:	Entrez Gene 11651 MouseEntrez Gene 24185 RatEntrez Gene 207 Human P31749

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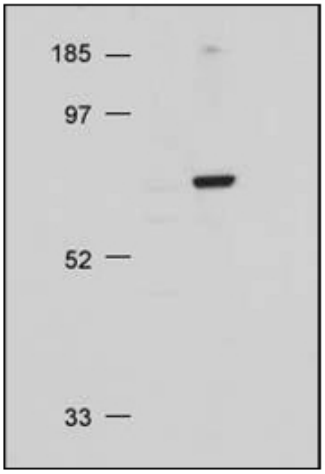
Background: AKT is a component of the PI-3 kinase pathway and is activated by phosphorylation at Ser 473 and Thr 308. AKT is a cytoplasmic protein also known as Protein Kinase B (PKB) and rac (related to A and C kinases). AKT is a key regulator of many signal transduction pathways. AKT Exhibits tight 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 and (ii) promotion of proliferation.

Synonyms: Akt-1, RAC-PK-alpha, RAC-PK-beta, RAC-PK-gamma, PKB gamma, Protein kinase B, C-AKT, PKBG, AKT-2, AKT-3 Review 010

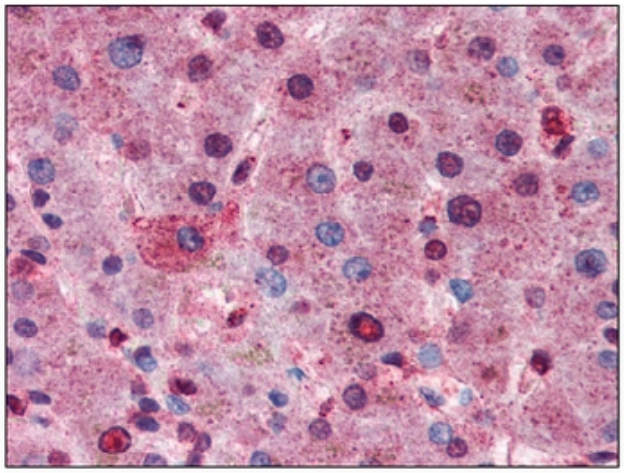
Protein Families: Druggable Genome, ES Cell Differentiation/IPS, Protein Kinase

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

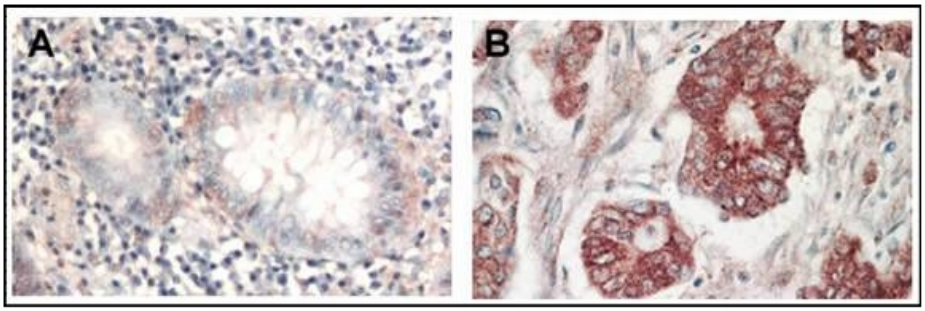
Product images:



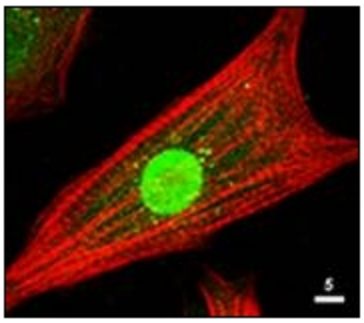
[AP22624PU-N] AKT antibody staining at 1/500 dilution by Immunoblotting.



[AP22624PU-N] AKT antibody staining of Formalin-Fixed Paraffin-Embedded Human Liver at 1/100 followed by Biotin conjugated Goat anti-Rabbit IgG secondary antibody, Alkaline Phosphatase-Streptavidin and Chromogen.



[AP22624PU-N] AKT antibody staining of Formalin-Fixed Paraffin-Embedded Sections at 1/1,000 dilution: Panel A: Normal colon tissue Panel B: Tumor tissue.



Immunofluorescence Microscopy: Rabbit anti-AKT antibody was used at a 1/80 dilution to stain cultured neonatal Rat cardiomyocytes that express a nuclear-targeted AKT construct. Anti-AKT staining appears green. Actin filaments are labeled red using a Texas-red?¢ conjugated phalloidin.