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Product datasheet for AP20689PU-N

AKT2 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	**Western blot**: 1/500-1/1000. **Immunohistochemistry on paraffin sections**: 1/50-1/200. **Immunofluorescence**: 1/50-1/200.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Synthetic peptide, corresponding to amino acids 450-500 of Human AKT2.
Specificity:	AKT2 (T468) pAb detects endogenous levels of total AKT2 protein. This antibody does not cross-react with AKT1 or AKT3.
Formulation:	Phosphate buffered saline (PBS), pH 7.2 State: Aff - Purified State: Liquid purified Ig fraction (> 95% by SDS-PAGE) Preservative: 0.05% sodium azide
Concentration:	1.0 mg/ml
Purification:	Affinity Chromatography using epitope-specific immunogen
Conjugation:	Unconjugated
Storage:	Store 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.
Predicted Protein Size:	~ 60 kDa
Gene Name:	Homo sapiens v-akt murine thymoma viral oncogene homolog 2 (AKT2), transcript variant 1
Database Link:	Entrez Gene 11652 Mouse Entrez Gene 25233 Rat Entrez Gene 208 Human P31751

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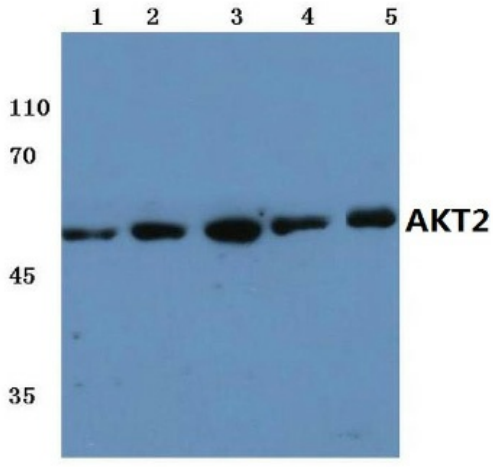
Background: The serine/threonine kinase Akt family contains several members, including Akt1 (also designated PKB or RacPK), Akt2 (also designated PKBβ or RacPK-β) and Akt3 (also designated PKBγ or thyoma viral proto-oncogene 3), which exhibit sequence homology with the protein kinase A and C families and are encoded by the c-Akt proto-oncogene. All members of the Akt family have a Pleckstrin homology domain. Akt1 and Akt2 are activated by PDGF stimulation. This activation is dependent on PDGFR-β tyrosine residues 740 and 751, which bind the subunit of the phosphatidylinositol 3-kinase (PI 3-kinase) complex. Activation of Akt1 by insulin or insulin-growth factor-I (IGF-I) results in phosphorylation of both Thr 308 and Ser 473. Akt proteins become phosphorylated and activated in insulin/IGF-I-stimulated cells by an upstream kinase(s), and the activation of Akt1 and Akt2 is inhibited by the PI kinase inhibitor Wortmannin. Taken together, this data strongly suggests that the protein signals downstream of the PI kinases. Akt3 is phosphorylated on a serine residue in response to insulin, and this activation is inhibited by prior activation of protein kinase C.

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

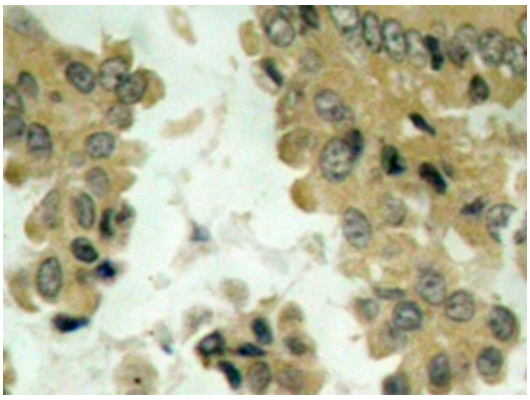
Protein Families: Druggable Genome, ES Cell Differentiation/IPS, Protein Kinase

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 of Akt2 antibody at 1/500 dilution. Lane 1: HeLa whole cell lysate. Lane 2: HepG2 whole cell lysate. Lane 3: NIH-3T3 whole cell lysate. Lane 4: Mouse brain tissue lysate. Lane 5: Rat brain tissue lysate.



Immunohistochemistry analysis of Akt2 antibody in paraffin-embedded human lung carcinoma tissue.