Recombinant Human AKT1, Inactived

Cat. No. AKT1-57H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human v-akt murine thymoma viral oncogene homolog 1 is a glycosilated polypeptide having a molecular mass of 59.1 kDa. Inactive enzyme, suitable for negative control experiments or for phosphorylation as a substrate. Recombinant Protein Kinase B is purified by proprietary chromatographic It is produced in Sf9 insect cells.
Species	Human
Source	Sf9 Cells
Description	Akt1, also known as "Akt" or protein kinase B (PKB) is an important molecule in mammalian cellular signaling. In humans, there are three genes in the "Akt family": Akt1, Akt2, and Akt3. These enzymes are members of the serine/threonine-specific protein kinase family (EC 2.7.11.1). 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.
Physical Appearance	Sterile Filtered clear solution.
Purity	Greater than 90% as determined by SDS-PAGE.

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

Formulation	PKAkt1 1.9mg/ml, in 50mM NaCl, 1mM DTT, 25mM beta glycerophosphate, 50% glycerol, pH 8.5.
Storage	Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. Avoid multiple freeze-thaw cycles.

GENE INFORMATION

Gene Name	AKT1 v-akt murine thymoma viral oncogene homolog 1 [Homo sapiens]
Synonyms	AKT1;v-akt murine thymoma viral oncogene homolog 1; AKT; PKB; RAC; PRKBA; MGC99656; PKB-ALPHA; RAC ALPHA; AKT1 kinase; protein kinase B; rac protein kinase alpha; RAC-alpha serine/threonine-protein kinase;EC2.7.11.1; RAC-PK-alpha
Gene ID	207
mRNA Refseq	NM_001014431
Protein Refseq	NP_001014431
UniProt ID	P31749
Chromosome Location	14q32.32-q32.33
MIM	164730
Pathway	Acute myeloid leukemia; 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; Inositol phosphate metabolism; Insulin

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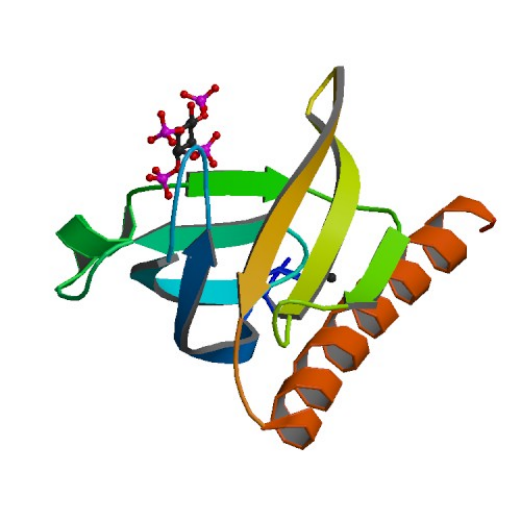
	signaling pathway; Jak-STAT signaling pathway; Natural killer cell mediated cytotoxicity; Leukocyte transendothelial migration; Melanoma; Non-small cell lung cancer; Pancreatic cancer; Pathways in cancer; Phosphatidylinositol signaling system; Prostate cancer; Regulation of actin cytoskeleton; Renal cell carcinoma; Small cell lung cancer; T cell receptor signaling pathway; Toll-like receptor signaling pathway; Type II diabetes mellitus; VEGF signaling pathway; VEGF signaling pathway; mTOR signaling pathway; Hemostasis; Signaling by GPCR; ignaling in Immune system; Signalling by NGF; Regulation of beta-cell development; Metabolism of nitric oxide
Function	ATP binding; enzyme binding; identical protein binding; nitric-oxide synthase regulator activity; nucleotide binding; phosphatidylinositol-3,4,5-trisphosphate binding; phosphatidylinositol-3,4-bisphosphate binding; protein serine/threonine kinase activity; transferase activity
PDB rendering based on 1h10.	

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