Recombinant Human AKT1 protein, GST-tagged

Cat. No. AKT1-3920H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human AKT1(1-224aa) fused with GST tag at N-terminal was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	1-224aa
Description	The serine-threonine protein kinase encoded by the AKT1 gene is catalytically inactive in serum-starved primary and immortalized fibroblasts. AKT1 and the related AKT2 are activated by platelet-derived growth factor. The activation is rapid and specific, and it is abrogated by mutations in the pleckstrin homology domain of AKT1. It was shown that the activation occurs through phosphatidylinositol 3-kinase. In the developing nervous system AKT is a critical mediator of growth factor-induced neuronal survival. Survival factors can suppress apoptosis in a transcription-independent manner by activating the serine/threonine kinase AKT1, which then phosphorylates and inactivates components of the apoptotic machinery. Mutations in this gene have been associated with the Proteus syndrome. Multiple alternatively spliced transcript variants have been found for this gene.
Form	1M PBS (58 mM Na2HPO4, 17 mM NaH2PO4, 68 mM NaCl, pH8.0), 100 mM GSH and 1% Triton X-100, 15% glycerol.
AA Sequence	MSDVAIVKEGWLHKRGEYIKTWRPRYFLLKNDGTFIGYKERPQDVDQREAPLNNFS

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	VAQCQLMKTERPRPNTFII RCLQWTTVIERTFHVETPEEREEWTTAIQTVADGLKKQ EEEEMDFRSGSPSDNSGAEEMEVSLAKPKHRVTMNEF EYLKLLGKGTFGKVILVKE KATGRYYAMKILKKEVIVAKDEVAHTLTENRVLQNSRHPFLTALKYSFQTHDRLC
Storage	Aliquot and store at -20 centigrade to -80 centigrade for up to 6 months. Avoid freeze thaw cycles.
Shipping	The product is shipped with ice packs. Upon receipt, store it immediately at -20 centigrade to -80 centigrade.

GENE INFORMATION

Gene Name	AKT1 v-akt murine thymoma viral oncogene homolog 1 [Homo sapiens]
Official Symbol	AKT1
Synonyms	AKT1; v-akt murine thymoma viral oncogene homolog 1; RAC-alpha serine/threonine-protein kinase; AKT; PKB; PRKBA; RAC; PKB alpha; RAC-PK-alpha; proto-oncogene c-Akt; protein kinase B alpha; rac protein kinase alpha; PKB-ALPHA; RAC-ALPHA; MGC99656;
Gene ID	207
mRNA Refseq	NM_001014431
Protein Refseq	NP_001014431
MIM	164730
UniProt ID	P31749

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Chromosome Location	14q32.32-q32.33
Pathway	AKT phosphorylates targets in the cytosol, organism-specific biosystem; AKT phosphorylates targets in the nucleus, organism-specific biosystem; AKT-mediated inactivation of FOXO1A, organism-specific biosystem; Activation of BAD and translocation to mitochondria, organism-specific biosystem; Activation of BH3-only proteins, organism-specific biosystem; Acute myeloid leukemia, organism-specific biosystem; Acute myeloid leukemia, conserved biosystem;
Function	ATP binding; ATP binding; enzyme binding; identical protein binding; kinase activity; nitric-oxide synthase regulator activity; nucleotide binding; phosphatidylinositol-3,4,5-trisphosphate binding; phosphatidylinositol-3,4-bisphosphate binding; protein binding; protein kinase activity; protein serine/threonine kinase activity; protein serine/threonine kinase activity;

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