

## Recombinant Human AKT1 protein, His-tagged

**Cat. No.** AKT1-47H    **Lot. No.** (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant Human AKT1(1-480aa) fused with His tag at N-terminal was expressed in E. coli.
<b>Species</b>	Human
<b>Source</b>	E.coli
<b>ProteinLength</b>	1-480 a.a.
<b>Description</b>	AKT1 serine-threonine protein kinase 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.
<b>Form</b>	Liquid. In 20mM Tris-HCl (pH8.0) containing 10% glycerol
<b>Molecular Mass</b>	58.1kDa (503aa)
<b>AA Sequence</b>	MGSSHHHHHH SSGLVPRGSH MGSMSDVAIV KEGWLHKRGE YIKTWRPRYF LLKNDGTFIG YKERPQDVDQ REAPLNNFSV AQCQLMKTERPRPNTFIIRC LQWTTVIERT FHVETPEERE EWTTAIQTVA DGLKKQEEEE MDFRSGSPSD NSGAEEMEVS LAKPKHRVTM NEFEYLKLLGKGTFGKVILV KEKATGRYYA MKILKKEVIV AKDEVAHTLT ENRVLQNSRH PFLTALKYSF QTHDRLCFVM

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EYANGGELFF HLSRERVFSEDRARFYGAEI VSALDYLHSE KNVVYRDLKL  
 ENLMLDKDGH IKITDFGLCK EGIKDGATMK TFCGTPEYLA PEVLEDNDYG  
 RAVDWWGLGVVMYEMMCGRL PFYNQDHEKL FELILMEEIR FPRTLGPPEAK  
 SLLSGLLKD PKQRLGGGSE DAKEIMQHRF FAGIVWQHVV  
 EKKLSPPFKPQVTSETDTRY FDEEFTAQMI TITPPDQDDS MECVDSERRP  
 HFPQFSYSAS GTA

**Purity** > 85% by SDS - PAGE

**Storage** Can be stored at +4 centigrade short term (1-2 weeks). For long term storage, aliquot and store at -20 centigrade or -70 centigrade. Avoid repeated freezing and thawing cycles.

**Concentration** 0.5mg/ml (determined by Bradford assay)

## 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\\_001014432](#)

**Protein Refseq** [NP\\_001014432](#)

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<b>MIM</b>	164730
<b>UniProt ID</b>	P31749
<b>Chromosome Location</b>	14q32.32-q32.33
<b>Pathway</b>	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;
<b>Function</b>	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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