Active Recombinant Human AKT1 Protein, His-tagged

Cat. No. AKT1-421H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Human AKT1 (NP_005154.1, 104 a.a. - 480 a.a.) partial recombinant protein with His tag expressed in baculovirus infected Sf21 cells.
Species	Human
Source	Insect Cells
ProteinLength	104-480 a.a.
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. [provided by RefSeq, Jul 2011]
Form	Liquid
Bio-activity	The activity was measured by off-chip mobility shift assay. The enzyme was

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	incubated with fluorescence-labeled substrate and Mg(or Mn)/ATP. The phosphorylated and unphosphorylated substrates were separated and detected by LabChip 3000. Substrate: TopoIIa peptide. ATP: 100 uM.
Molecular Mass	70 kDa
Purity	69 % by SDS-PAGE/CBB staining
Applications	Functional Study; SDS-PAGE
Storage	Store at -80 centigrade. Aliquot to avoid repeated freezing and thawing.
Storage Buffer	In 50 mM Tris-HCl, 150 mM NaCl, pH 7.5 (0.05% Brij35, 1 mM DTT, 10% glycerol)

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

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MIM	164730
UniProt ID	P31749
	Loading 1 μg protein in SDS-PAGE
	Result of activity analysis

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