

Recombinant Human AKT1 Protein, Myc/DDK-tagged, C13 and N15-labeled

Cat. No. AKT1-4200H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	AKT1 MS Standard C13 and N15-labeled recombinant protein (NP_001014431) with a C-terminal MYC/DDK tag, was expressed in HEK293 cells.
Species	Human
Source	HEK293
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.
Molecular Mass	55.7 kDa
AA Sequence	MSDVAIVKEGWLHKRGEYIKTWRPRYFLLKNDGTFIGYKERPQDVDQREAPLNNFS VAQCQLMKTERPRPNTFIIRCLQWTTVIERTFHVETPEEREETTAIQTVADGLKKQ

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EEEEMDFRSGSPSDNSGAEEMEVSLAKPKHRVTMNEFEYLKLLGKGTFGKVILVKE
 KATGRYYAMKILKKEVIVAKDEVAHTLTENRVLQNSRHPFLTALKYSFQTHDRLCFV
 MEYANGGELFFHLSRERVFSEDRARFYGAEIVSALDYHSEKNVVYRDLKLENLMLD
 KDGHKITDFGLCKEGIKDGATMKTFCGTPEYLAPEVLEDNDYGRAVDWWGLGVVM
 YEMMCGRLPFYNQDHEKLFELILMEEIRFPRTLGPPEAKSLLSGLLKKDPKQRLGGGS
 EDAKEIMQHRFFAGIVWQHVVYEKKLSPPFKPQVTSETDTRYFDEEFTAQMITITPPD
 QDDSMCEVDSERRPHFPQFSYSASGTATRTRPLEQKLISEEDLAANDILDYKDDDD
 KV

Purity > 80% as determined by SDS-PAGE and Coomassie blue staining

Stability Stable for 3 months from receipt of products under proper storage and handling conditions.

Storage Store at -80 centigrade. Avoid repeated freeze-thaw cycles.

Concentration 50 µg/mL as determined by BCA

Storage Buffer 100 mM glycine, 25 mM Tris-HCl, pH 7.3.

GENE INFORMATION

Gene Name AKT1 v-akt murine thymoma viral oncogene homolog 1 [Homo sapiens (human)]

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;

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Gene ID	207
mRNA Refseq	NM_001014431
Protein Refseq	NP_001014431
MIM	164730
UniProt ID	P31749
SDS-PAGE	