

Active Recombinant Full Length Human AKT3 Protein, C-Flag-tagged

Cat. No. AKT3-424HFL **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Full Length Human AKT3 Protein, fused to Flag-tag at C-terminus, was expressed in Mammalian cells.
Species	Human
Source	Mammalian Cells
Description	The protein encoded by this gene is a member of the AKT, also called PKB, serine/threonine protein kinase family. AKT kinases are known to be regulators of cell signaling in response to insulin and growth factors. They are involved in a wide variety of biological processes including cell proliferation, differentiation, apoptosis, tumorigenesis, as well as glycogen synthesis and glucose uptake. This kinase has been shown to be stimulated by platelet-derived growth factor (PDGF), insulin, and insulin-like growth factor 1 (IGF1). Alternatively splice transcript variants encoding distinct isoforms have been described.
Form	25 mM Tris HCl, pH 7.3, 100 mM glycine, 10% glycerol.
Bio-activity	AKT3 activity verified in a biochemical assay: AKT3 (-akt murine thymoma viral oncogene homolog 3 (protein kinase B, gamma) activity was measured in a homogeneous time-resolved fluorescent (HTRF®) assay. AKT3 is a serine/threonine kinase that plays a key in regulating cell survival, insulin signaling, angiogenesis and tumor formation. Varying concentrations of AKT3 were added to a reaction mix

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containing ATP and a biotinylated kinase substrate and the reaction mixture was incubated to allow the protein to phosphorylate the substrate. HTRF detection reagents were then added, and the time-resolved fluorescent signal was measured on a Flexstation 3 microplate reader. The time resolved fluorescent signal is expressed as “delta R” or “ΔR” and is a ratio calculated from the fluorescent emission intensities of the donor and acceptor fluors.

Molecular Mass	55.6 kDa
AA Sequence	MSDVTIVKEGWVQKRGEYIKNWRPRYFLLKTDGSFIGYKEKPQDVDLPYPLNNFSV AKCQLMKTERPKPN TFIIRCLQWTTVIERTFHVDTPPEEREEWTEAIQAVADRLQRQE EERMNCSPTSQIDNIGEEEMDASTTHH KRKTMNDFDYLLGKGTFGKVILVREKA SGKYYAMKILKKEVIIAKDEVAHTLTESRVLKNTRHPFLTS LKYSFQTKDRLCFVMEY VNGGELFFHLSRERVFSEDRTFRFYGAEIVSALDYLSHGKIVYRDLKLENLMLD KDGH IKITDFGLCKEGITDAATMKTFCGTPEYLAPEVLEDNDYGRAVDWWGLGVVMYEMM CGRLPFYNQD HEKLFELILMEDIKFPRTLSSDAKSLLSGLLIKDPNKRLLGGGPDDAKE IMRHSFFSGVNWQDVYDKKLVP PFKPQVTSETDTRYFDEEFTAQTITITPPEKYDEDGMDCMDNERRPHFPQFSYSAS GRETRTRPLEQKLISEEDLAANDILDYKDDDDKV
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining.
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade.
Concentration	>50 ug/mL as determined by microplate BCA method.
Preparation	Recombinant protein was captured through anti-DDK affinity column followed by

conventional chromatography steps.

Protein Families	Druggable Genome, ES Cell Differentiation/IPS, Protein Kinase
Protein Pathways	Acute myeloid leukemia, Adipocytokine signaling pathway, 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, Insulin signaling pathway, Jak-STAT signaling pathway, MAPK signaling pathway, Melanoma, mTOR signaling pathway, Neurotrophin signaling pathway, Non-small cell lung cancer, Pancreatic cancer, Pathways in cancer, Progesterone-mediated oocyte maturation, Prostate cancer, Renal cell carcinoma, Small cell lung cancer, T cell receptor signaling pathway, Tight junction, Toll-like receptor signaling pathway, VEGF signaling pathway
Full Length	Full L.

GENE INFORMATION

Gene Name	AKT3 AKT serine/threonine kinase 3 [Homo sapiens (human)]
Official Symbol	AKT3
Synonyms	MPPH; PKBG; MPPH2; PRKBG; STK-2; PKB-GAMMA; RAC-gamma; RAC-PK-gamma
Gene ID	10000
mRNA Refseq	NM_005465.7
Protein Refseq	NP_005456.1

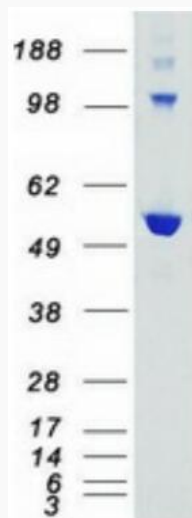
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MIM 611223

UniProt ID Q9Y243



Coomassie blue staining of purified AKT3 protein.

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