

Active Recombinant Human AKT2, GST-tagged

Cat. No. AKT2-103H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full-length human AKT2 (R274H) was expressed by baculovirus in Sf9 insect cells using an N-terminal GST tag.
Species	Human
Source	Sf9 Cells
Description	AKT2 or Protein Kinase B beta (PKBbeta) is a serine/threonine kinase that is a member of the AKT family. AKT2 like the other AKT members is activated in cells in response to diverse stimuli such as hormones, growth factors and extracellular matrix components and is involved in glucose metabolism, transcription, survival, cell proliferation, angiogenesis, and cell motility. The PI3K generates phosphatidylinositol-3, 4, 5-trisphosphate (PIP3), a lipid second messenger essential for the translocation of AKT2 to the plasma membrane where it is phosphorylated and activated by phosphoinositide-dependent kinase-1 (PDK-1).
Form	Recombinant protein stored in 50mM Tris-HCl, pH 7.5, 150mM NaCl, 10mM glutathione, 0.1mM EDTA, 0.25mM DTT, 0.1mM PMSF, 25% glycerol.
Bio-activity	The specific activity of AKT2 was determined to be 1.5 nmol /min/mg
Molecular Mass	~85 kDa
Purity	>95% by densitometry

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Applications	Kinase Assay, Western Blot
Storage	Store product at –70 centigrade. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.
Concentration	0.1 µg/µl
GENE INFORMATION	
Gene Name	AKT2 v-akt murine thymoma viral oncogene homolog 2 [Homo sapiens]
Official Symbol	AKT2
Synonyms	AKT2; v-akt murine thymoma viral oncogene homolog 2; RAC-beta serine/threonine-protein kinase; PKB beta; RAC-PK-beta; protein kinase Akt-2; protein kinase B beta; rac protein kinase beta; murine thymoma viral (v-akt) homolog-2; PKBB; PRKBB; HIHGHH; PKBBETA; RAC-BETA;
Gene ID	208
mRNA Refseq	NM_001243027
Protein Refseq	NP_001229956
MIM	164731
UniProt ID	P31751
Chromosome Location	19q13.1-q13.2

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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 PKB, organism-specific biosystem; Acute myeloid leukemia, organism-specific biosystem; Acute myeloid leukemia, conserved biosystem; Adaptive Immune System, organism-specific biosystem;

Function

ATP binding; ATP binding; kinase activity; nucleotide binding; protein binding; protein kinase C binding; protein serine/threonine kinase activity; protein serine/threonine kinase activity; protein serine/threonine kinase activity;

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