

Recombinant AKT2 protein

Catalog No: 31146

Expressed In: Baculovirus

Quantity: 100 µg

Concentration: 1.54 µg/µl

Source: Human

Buffer Contents: 100 µg of Recombinant AKT2 protein in 50 mM Tris-HCl, 100 mM NaCl, 1 mM DTT, 50% glycerol, pH 8.5. Protein is supplied at 1.54 µg/µl.

Background: **AKT2** (V-Akt Murine Thymoma Viral Oncogene Homolog 2) is a member of a subfamily of serine-threonine protein kinases, known as the AKT kinases, that includes AKT1, AKT2 and AKT3. AKTs have been shown to be a critical mediator of survival and apoptosis signaling events. AKT2 is expressed in insulin-responsive tissues and has been shown to be important in the regulation of glucose metabolism. Defects in AKT2 expression have been associated with the display of diabetic phenotypes. AKT2 was also shown to be overexpressed in ovarian cancer cells and its overexpression is also associated with contributing to the malignant phenotype of a subset human ductal pancreatic cancers.

Protein Details: Recombinant human AKT2 kinase is highly active and is suitable for labeling AKT2 kinase substrates. The kinase is phosphorylated at Thr309 and Ser474. The accession number is NM_001626. This protein has an amino terminal polyhistidine tag and had been purified by Ni-NTA agarose chromatography to > 95% by SDS-PAGE.

Application Notes: Recombinant AKT2 is suitable for kinase assays. The molecular weight of the protein is ~60.44 kDa. The activity of the protein is ~ 6100 units/mg with 1 unit defined as the amount of enzyme that will catalyze the transfer of 1 pmol phosphate to synthetic peptide substrate RPRAATF per minute at 30°C.

Recommended Kinase Reaction Buffer: 20 mM Tris-HCl, 25 mM β-glycerolphosphate, 5 mM EGTA, 1 mM sodium orthovanadate and 1 mM DTT, pH 7.5.

Kinase activity may vary depending on the substrate and reaction conditions used.

Storage and Guarantee: Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. This product is guaranteed for 6 months from date of receipt.

This product is for research use only and is not for use in diagnostic procedures.