Recombinant Mouse AKT3 Protein (aa 106-479)

Catalog Number: PKSM040289

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

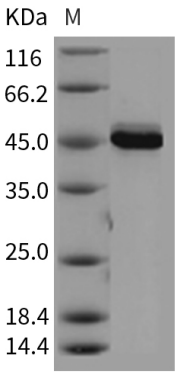
Description

Species	Mouse
Source	Baculovirus-Insect Cells-derived Mouse AKT3 protein Ala106-Glu479
Calculated MW	43.4 kDa
Observed MW	46 kDa
Accession	Q9WUA6-1
Bio-activity	The specific activity was determined to be 20 nmol/min/mg using synthetic GSK3-derived peptide (R11-SGRARTSSFAEPGGK) as substrate.

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Concentration	Subject to label value.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.
Shipping	This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at < - 20°C.
Formulation	Supplied as sterile solution of 20mM Tris, 500mM NaCl, 10% glycerol, pH 7.4

Data



> 95 % as determined by reducing SDS-PAGE.

Background

v-akt murine thymoma viral oncogene homolog 3 (AKT3), also known as PKB-GAMMA, with AKT1/PKBalpha, AKT2/PKBbeta, are the memerbers of Akt kinase family, share extensive structural similarity and perform common as well as unique functions within cells. The Akt signaling cascade initiates at the cell surface when growth factors or other extracellular stimuli activate phosphoinositide 3-kinase (PI3K). AKT3 was discovered to be the predominant isoform activated in sporadic melanomas. Levels of activity increased during melanoma progression with metastatic melanomas having the highest activity. Although mechanisms of AKT3 activation remain to be fully characterized, overexpression of AKT3 and decreased PTEN activity play important roles in this process. Targeted reduction of AKT3 activity decreased survival of melanoma tumor cells leading to inhibition of tumor development, which may be therapeutically effective for shrinking tumors in melanoma patients. AKT2 and AKT3 play an important role in the viability of human malignant glioma cells. Targeting AKT2 and AKT3 may hold promise for the treatment of patients with gliomas.

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