

Recombinant Human pan-AKT protein (His Tag)

Catalog No. PDEH100034

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

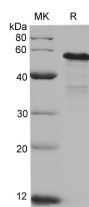
Description

Synonyms	AKT 1;AKT;AKT1_HUMAN;MGC99656;PKB;PKB-ALPHA;PRKBA;Protein Kinase B Alpha;Protein kinase B;Proto-oncogene c-Akt;RAC Alpha;RAC;RAC-alpha serine/threonine-protein kinase;RAC-PK-alpha
Species	Human
Expression Host	E.coli
Sequence	Met1-Ala480
Accession	P31749-1
Calculated Molecular Weight	55.7 kDa
Observed molecular weight	53-58 kDa
Tag	N-His
Bioactivity	Not validated for activity

Properties

Purity	> 90 % as determined by reducing SDS-PAGE.
Endotoxin	Please contact us for more information.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4, 5% trehalose, 5% mannitol, 0.01% Tween 80. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis

Data



> 90 % as determined by reducing SDS-PAGE.

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Background

downstream of phosphatidylinositol 3-kinase (PI3K) to mediate the effects of various growth factors such as platelet-derived growth factor (PDGF), epidermal growth factor (EGF), insulin and insulin-like growth factor I (IGF-I) . AKT mediates the antiapoptotic effects of IGF-I. Essential for the SPATA13-mediated regulation of cell migration and adhesion assembly and disassembly . May be involved in the regulation of the placental development. Phosphorylates STK4/MST1 at 'Thr-120' and 'Thr-387' leading to inhibition of its: kinase activity, nuclear translocation, autophosphorylation and ability to phosphorylate FOXO3 . Phosphorylates STK3/MST2 at 'Thr-117' and 'Thr-384' leading to inhibition of its: cleavage, kinase activity, autophosphorylation at Thr-180, binding to RASSF1 and nuclear translocation. Phosphorylates SRPK2 and enhances its kinase activity towards SRSF2 and ACIN1 and promotes its nuclear translocation. Phosphorylates RAF1 at 'Ser-259' and negatively regulates its activity. Phosphorylation of BAD stimulates its pro-apoptotic activity . Phosphorylates KAT6A at 'Thr-369' and this phosphorylation inhibits the interaction of KAT6A with PML and negatively regulates its acetylation activity towards p53/TP53. Phosphorylates palladin (PALLD), modulating cytoskeletal organization and cell motility. Phosphorylates prohibitin (PHB), playing an important role in cell metabolism and proliferation. Phosphorylates CDKN1A, for which phosphorylation at 'Thr-145' induces its release from CDK2 and cytoplasmic relocation.

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