PRODUCT INFORMATION

Expression system Baculovirus

Domain 1-480aa

UniProt No. P31749

NCBI Accession No. NP_001014432

Alternative Names Protein kinase B, Protein kinase B alpha, Proto-oncogene c-Akt, RAC-PK-alpha

PRODUCT SPECIFICATION

Molecular Weight 56.7 kDa (488aa)

Concentration 0.5mg/ml (determined by absorbance at 280nm)

Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) 20% glycerol

Purity

> 90% by SDS-PAGE

Endotoxin level < 1 EU per 1ug of protein (determined by LAL method)

Tag His-Tag

Application SDS-PAGE

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description

AKT1, also known as RAC-alpha serine/threonine-protein kinase, is catalytically inactive in serum-starved primary and immortalized fibroblasts. AKT1 and the related AKT2 are activated by platelet-derived growth factor. The activation is rapid and specific, and it is abrogated by mutations in the pleckstrin homology domain of AKT1. It was shown that the activation occurs through phosphatidylinositol 3-kinase. Survival factors can suppress



apoptosis in a transcription-independent manner by activating the serine/threonine kinase AKT1, which then phosphorylates and inactivates components of the apoptotic machinery. Recombinant human AKT1, fused to Histag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

Amino acid Sequence

MSDVAIVKEG WLHKRGEYIK TWRPRYFLLK NDGTFIGYKE RPQDVDQREA PLNNFSVAQC QLMKTERPRP NTFIIRCLQW TTVIERTFHV ETPEEREEWT TAIQTVADGL KKQEEEEMDF RSGSPSDNSG AEEMEVSLAK PKHRVTMNEF EYLKLLGKGT FGKVILVKEK ATGRYYAMKI LKKEVIVAKD EVAHTLTENR VLQNSRHPFL TALKYSFQTH DRLCFVMEYA NGGELFFHLS RERVFSEDRA RFYGAEIVSA LDYLHSEKNV VYRDLKLENL MLDKDGHIKI TDFGLCKEGI KDGATMKTFC GTPEYLAPEV LEDNDYGRAV DWWGLGVVMY EMMCGRLPFY NQDHEKLFEL ILMEEIRFPR TLGPEAKSLL SGLLKKDPKQ RLGGGSEDAK EIMQHRFFAG IVWQHVYEKK LSPPFKPQVT SETDTRYFDE EFTAQMITIT PPDQDDSMEC VDSERRPHFP QFSYSASGTA <LEHHHHHH>

General References

Lindhurst MJ, et al (2011) N Engl J Med. 365(7):611-9.

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain