

Mouse AKT3 Protein (aa 106-479, His & GST Tag)

Catalog Number: 51027-M20B



Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

AKT3

Protein Construction:

A DNA sequence encoding the mouse AKT3 (Q9WUA6-1) (Ala106-Glu479) was expressed with the N-terminal polyhistidine-tagged GST tag at the N-terminus.

Source: Mouse

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Bio-Activity

No Kinase Activity

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Met

Molecular Mass:

The recombinant mouse AKT3/GST chimera consists of 611 amino acids and has a calculated molecular mass of 71 kDa. The recombinant protein migrates as an approximately 65 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 20mM Tris, 500mM NaCl, pH 7.4, 10% glycerol

Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

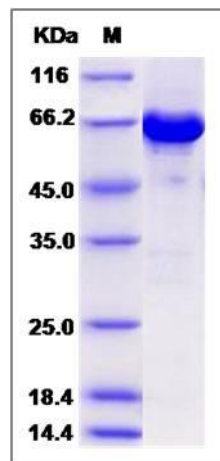
Usage Guide

Storage:

Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

SDS-PAGE:



Reconstitution:

Detailed reconstitution instructions are sent along with the products.

Protein Description

V-akt murine thymoma viral oncogene homolog 3, also known as AKT3 and protein kinase B gamma (PKBγ), is a member of the AKT, also called PKB, serine/threonine protein kinase family. The AKT family also includes AKT 1 (PKBα) and AKT 2 (PKBβ) and these highly homologous kinases are known to be regulators of cell signaling in response to insulin and growth factors. They are involved in a wide variety of biological processes including cell proliferation, differentiation, apoptosis, tumorigenesis, as well as glycogen synthesis and glucose uptake. AKT3 has been shown to be stimulated by platelet-derived growth factor (PDGF), insulin, and insulin-like growth factor 1 (IGF1). Alternatively splice transcript variants encoding distinct isoforms have been described. AKT3 contains 1 AGC-kinase C-terminal domain, 1 PH domain and 1 protein kinase domain, and binding of the PH domain to the phosphatidylinositol 3-kinase alpha (PI3K) results in this cytoplasmic protein kinase targeting to the plasma membrane. In adult tissues, It is highly expressed in brain, lung and kidney, but weakly in heart, testis and liver, whereas in fetal tissues, it is highly expressed in heart, liver and brain and not at all in kidney. Alternatively splice transcript variants encoding distinct isoforms have been described.

References

1. Li W. et al.,1997, J Biol Chem. 272 (39): 24550-5.
2. Borgatti P. et al.,1998, Eur. J. Immunol. 27 (11): 2805-11.
3. Walker KS. et al.,1998, Biochem J. 331 (1): 299-308.
4. Sandrasegarane L. et al., 2001, Biochem Biophys Res. 283 (1): 158-63.
5. Hodgkinson CP. et al., 2002, Biochemistry. 41 (32): 10351-9.

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