
Product Data Sheet

Product Name: AKT1 Human
 Cat. No.: GP22419
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	V-Akt Murine Thymoma Viral Oncogene Homolog 1; Protein Kinase B Alpha; Proto-Oncogene C-Akt; RAC-PK-Alpha; EC 2.7.11.1; PKB Alpha; CWS6; PKB; RAC; RAC-Alpha Serine/Threonine-Protein Kinase; Rac Protein Kinase Alpha; Protein Kinase B; PKB-ALPHA; RAC-ALPHA; EC 2.7.11; AKT1m; PRKBA; AKT; RAC-alphaserine/threonine-protein kinase.		
Amino Acid Sequence	MGSSHHHHHH SGLVPRGSH MGSMSDVAIV KEGWLHKRGE YIKTWRPRYF LLKNDGTFIG YKERPQDVDQREAPLNNFSV AQCQLMKTER PRPNTFIIRC LQWTTVIERT FHVETPEERE EWTTAIQTVA DGLKKQEEEEMDFRSGSPSD NSGAEEMEVS LAKPKHRVTM NEFEYLKLLGKGTFGKVILV KEKATGRYYA MKILKKEVIV AKDEVAHTLT ENRVLQNSRHPFLTALKYSF QTHDRLCFVM EYANGGELFF HLSRERVFSE DRARFYGAEI VSALDYHSE KNVVYRDLKLENLMLDKDGH IKITDFGLCK EGIKDGATMK TFCGTPEYLA PEVLEDNDYG RAVDWWGLGVVMMYEMMCGRL PFYNQDHEKL FELILMEEIR FPRTLGPPEAK SLLSGLLKKDPKQRLGGGSE DAKEIMQHRF FAGIVWQHVV EKKLSPPFKP QVTSETDRY FDEEFTAQMI TITPPDQDDSMCEVDSERRP HFPQFSYSAS GTA.		
Formulation	AKT1 protein solution (0.5mg/ml) containing 20mM Tris-HCl (pH8.0) and 10% glycerol.		

Introduction

Akt1, also known as Akt or else protein kinase B (PKB) is an important molecule in mammalian cellular signaling. In humans, there are three genes in the "Akt family": Akt1, Akt2, and Akt3. Moreover, these enzymes are members of the serine/threonine-specific protein kinase family (EC2.7.11.1). Akt1 is involved in cellular survival pathways, by inhibiting apoptotic processes. Akt1 is also able to induce protein synthesis pathways, and

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is therefore a key signaling protein in the cellular pathways which lead to skeletal muscle hypertrophy, and general tissue growth. Since it can block apoptosis, and thereby promote cell survival, Akt1 has been implicated as a most important factor in numerous types of cancer. Akt (now also called Akt1) was at first identified as the oncogene in the transforming retrovirus, AKT8.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Background

AKT1 Human Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 503 amino acids (1-480 a.a) and having a molecular mass of 58.1kDa.

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