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**Product Data Sheet**


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Product Name: AKT1 Human, Sf9

Cat. No.: GP22420

Batch No.: 1

**Product Data**

Purity &gt;98% Source Sf9, Baculovirus cells.

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-alpha serine/threonine-protein kinase.

Amino Acid Sequence  
 MSDVAIVKEG WLHKRGEYIK TWRPRYFLLK NDGTFIGYKE  
 RPQDVDQREAPLNNFSVAQC QLMKTERPRP NTFIIRCLQW TTVIERTFHV  
 ETPEEREWT TAIQTVADGL KKQEEEEEMDF RSGSPSDNSGAEEMEVS LAK  
 PKHRVTMNEF EYLKLLGKGT FGKVILVKEK ATGRYYAMKILKKEVIVAKD  
 EVAHTLTENR VLQNSRHPFL TALKYSFQTH DRLCFVMEYANGGELFFHLS  
 RERVFSEDRA RFYGAEIVSA LDYLVHSEKNV VYRDLKLENL MLDKDGHIKI  
 TDFGLCKEIKDGATMKTFC GTPEYLAPEV LEDNDYGRAV DWWGLGVVMY  
 EMMCGRLPFY NQDHEKLFELILMEEIRFPR TLGPEAKSLL SGLLKKDPKQ  
 RLGGSSEDAK EIMQHRFFAGIVWQHVEK LSPPFKPQVT SETDTRYFDE  
 EFTAQMITIT PPDQDDSMEC VDSERRPHFP QFSYSASGTA LEHHHHHH.

Formulation AKT1 protein solution (0.5 mg/ml) contains phosphate buffered saline (pH 7.4) and 20% 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 (EC 2.7.11.1). Akt1 is involved in cellular survival pathways, by inhibiting apoptotic processes. Akt1 is also able to induce protein synthesis pathways, and is therefore a key signaling protein in the cellular pathways which lead to skeletal

**Caution: Product has not been fully validated for medical applications. For research use only.**

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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 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 produced in Sf9 Baculovirus cells is a single, glycosylated polypeptide chain containing 488 amino acids (1-480 a.a.) and having a molecular mass of 56.7 kDa. (Molecular size on SDS-PAGE will appear at approximately 50-70 kDa). AKT1 is expressed with an 8 amino acid His tag at C-terminus and purified by proprietary chromatographic techniques.

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