



Product Data Sheet

Cat # RP-664    Recombinant Human Protein Kinase Akt1/PKB alpha Active Enzyme    **Size:**  5 ug     20 ug

**Synonyms:**

RAC-alpha serine/threonine-protein kinase, EC 2.7.11.1, RAC-PK-alpha, Protein kinase B, PKB, C-AKT, AKT1, AKT, RAC, PRKBA, MGC99656, RAC-ALPHA.

**Introduction:**

Akt1, also known as "Akt" or protein kinaseB (PKB) is an important molecule in mammalian cellular signaling. In humans, there are three genes in the "Akt family": Akt1, Akt2, and Akt3. 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 is therefore a key signaling protein in the cellular pathways that 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 major factor in many types of cancer. Akt (now also called Akt1) was originally identified as the oncogene in the transforming retrovirus, AKT8.

**Description:**

Recombinant Human Protein Kinase B is a glycosylated polypeptide having a molecular mass of 59.1 kDa. Recombinant Protein Kinase B is purified by proprietary chromatographic techniques.

**Source:**

Sf9 insect cells.

**Physical Appearance:**

Sterile Filtered clear solution.

**Formulation:**

PKAkt1 1.9mg/ml, in 50mM NaCl, 1mM DTT, 25mM beta glycerophosphate, 50% glycerol, pH 8.5.

**Unit Definition**

20,000 Units/mg (1 Unit = 1 pmol/min transferred to synthetic peptide RPRAATF at 30 degree Celsius). No protease activity detectable.

**Purity:**

Greater than 90% as determined by SDS-PAGE.

**Usage:**

This item is for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals. If supplied in powder then reconstitute it in 100 ul water for 1 mg/ml stock and store in liquid at 4°C for ~1 week or aliquots in suitable size and store at -20°C for long term storage.

Rev. 80311H