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California Bioscience

Product Datasheet

Product Name	Protein Kinase Akt1/PKB alpha, Inactive enzyme Human Recombinant
Cata No	CB500814
Source	*Sf9 insect cells.*
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.

Description

Akt1, also known as "Akt" or protein kinaseB (PKB) is an important molecule in mammaliancellular signaling.

In humans, there are three genes in the "Akt family": Akt1, Akt2, and Akt3. These enzymesare members of the serine/threonine-specific protein kinasefamily (EC2.7.11.1).

Akt1 is involved in cellular survival pathways, by inhibiting apoptoticprocesses. Akt1 is also able to induce protein synthesispathways, 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 oncogenein the transforming retrovirus, AKT8.

PKAkt1 is a glycosilated polypeptide having a molecular mass of 59.1 kDa, fused with a polyhistidine tag at N-terminus (to facilitate removal of Akt1 kinase from the reaction mixture).
Inactive enzyme, suitable for negative control experiments or for phosphorylation as a substrate.
Recombinant Protein Kinase B is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile Filtered clear solution.

Purity

Greater than 90% as determined by SDS-PAGE.

Formulation

PKAkt1 1.9mg/ml, in 50mM Tris-HCl, 100mM NaCl, 1mM DTT, 25mM beta glycerophosphate, 50% glycerol, pH 8.5.