Product Specification Sheet

Recombinant Human Protein Kinase Akt1/PKB alpha (PRKBA/PKB) protein

Cat# PAKT19-R-5 Recombinant (Sf9) purified, human Protein Kinase Akt1/PKB alpha (PRKBA/PKB) protein, inactive **SIZE**: 5 ug

Akt1, also known as "Akt" or 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. These enzymesare members of the serine/threonine-specific protein kinase family. 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.

Source of Antigen and Antibodies

PKAkt1 is produced in Sf9 insect cell line and supplied in 50mM Tris-HCl, 100mM NaCl, 1mM DTT, 25mM beta glycerophosphate, 50% glycerol, pH 8.5.

Unit definition 1 Unit is defined as 1 picomole phosphate transferred to the synthetic peptide (RPRAATF) per min at 30°C.

Activity No protease activity (Twinning test).
The Specific activity is 235 U/mg.

Suggested usage:

ELISA: coat at 0.2-5 ug/ml depending upon the application and sensitivity of the assay.

Storage

Short-term: unopened, undiluted vials for less than a week at 4oC.

Long-term: at –20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at –20oC or below.

Shipping: 4oC for solutions and room temp for powder.

General References: Freeman-Cook KD, et al (2010). J. Med. Chem. 53 (12): 4615–22; Heerding DA, et al (2008). J. Med. Chem. 51 (18): 5663–79; Chen WS, (2001). Genes & Development 15 (17): 2203–2208.

*This product is for in vitro research use only.

Related items

Catalog#	Prod Description
RP-664	Recombinant (Sf9) Human Protein Kinase Akt1/PKB alpha Active Enzyme
RP-665	Recombinant (Sf9) Human Protein Kinase Akt1/PKB alpha Inactive Enzyme
RP-676	Recombinant (Sf9) Human Protein Kinase C alpha
RP-682	Recombinant (E.Coli) Human Protein kinase Casein Kinase 2 alpha, his Tag
RP-695	Recombinant (E.Coli) Human Protein Kinase C Inhibitor Protein-1
RP-725	Recombinant Human Protein Kinase C beta 1
RP-726	Recombinant Human Protein Kinase C beta 2
RP-727	Recombinant Human Protein Kinase C gamma
RP-728	Recombinant Human Protein Kinase C delta
RP-729	Recombinant (Sf9) Human Protein Kinase C e
RP-731	Recombinant Human Protein Kinase C q
PAKT18-R-5	Recombinant (E.Coli) purified, human Protein Kinase Akt1/PKB alpha (PRKBA/PKB) protein, active
PAKT19-R-5	Recombinant (Sf9) purified, human Protein Kinase Akt1/PKB alpha (PRKBA/PKB) protein, inactive

PAKT19-R-5-Human-Protein-Kinase 160420SV

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