

Active Akt2



TECHNICAL SPECIFICATIONS

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Active Recombinant Human Akt2 (PKB β) Product #: PPK-411

Description:

Active recombinant human full length Akt2 protein expressed by baculovirus in Sf9 insect cells. This protein has an apparent molecular weight of ~58kDa.

Storage Note:

Active kinases are sensitive to temperature variations and freeze/thaw cycles. Aliquot undiluted stock solution to avoid repeated freezing and thawing. Store at -70°C . Use aliquoted kinase immediately upon thawing.

Activity Assay:

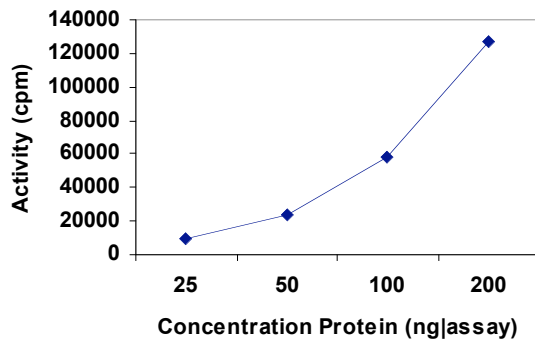
Kinase activity is measured as the molar amount of phosphate incorporated into Akt/SGK substrate peptide (RPRAATF), product # SPK-103, per minute per mg protein at 30°C using a final concentration of $50\ \mu\text{M}$ [^{32}P] ATP.

in glucose metabolism, transcription, survival, cell proliferation, angiogenesis, and cell motility (1). PI3K generates phosphatidylinositol-3,4,5-trisphosphate (PIP₃), a lipid second messenger essential for the translocation of Akt2 to the plasma membrane where it is phosphorylated and activated by phosphoinositide-dependent kinase-1 (PDK-1) (2).

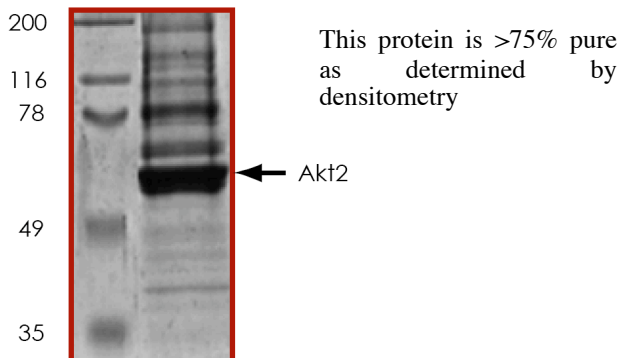
References:

1. Coffey PJ, Jin J, Woodgett JR (1998) *Biochem J.* 335(Pt 1):1-13.
2. Anderson KE, Coadwell J, Stephens LR, Hawkins PT. (1998) *Curr Biol.* 8(12):684-91.

Rev: 03/1/07



Purity Analysis:



Scientific Background:

Akt2 or Protein Kinase B β (PKB β) is a serine/threonine kinase that is a member of the Akt family. Akt2 like the other Akt members is activated in cells in response to diverse stimuli such as hormones, growth factors and extracellular matrix components and is involved

CERTIFICATE OF ANALYSIS

Active Akt2

Product #: PPK-411

Size: 5 μg

Specific Activity:

46 nmol/min/mg

Lot #: 02190715

Format: Recombinant human full length Akt2 protein in 50 mM Tris-HCl, pH 7.5, 150 mM NaCl, 0.25 mM DTT, 0.1 mM EGTA, 25% glycerol, 0.1 mM EDTA, 0.1 mM PMSF.

Purity: This protein is >75% pure as determined by densitometry

Concentration: 0.1 mg/mL

STORAGE & SHIPPING: Store frozen product at or below -70°C . For optimal storage, aliquot to smaller portions and store at -70°C . Avoid repeated freeze/thaw cycles. For maximum product recovery, after thawing, centrifuge the product vial before removing cap. Shipped on dry ice.



FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES: This product is not to be used for diagnostic nor therapeutic purposes. By accepting this product, the user confirms that it will be used for research purposes only. Stressgen warrants that its products conform to the information published by Stressgen. Purchaser must determine the suitability of the product for their particular use. Please refer to the MSDS for product safety information.

MATERIAL SAFETY DATA SHEET

Section 1 - Product Identification and Use

Product Name: Active Akt2 **Product#** PPK-411

This product is sold only for research use by qualified laboratory personnel, and is not to be used as a drug, medical device, food additive, cosmetic, nor household chemical. It is not to be used in diagnostic, therapeutic, consumer, agricultural, nor pesticidal applications.

Manufacturer's Name: Assay Designs
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Fax: (734) 668-2793
EMERGENCY PHONE: (734) 668-6113

Section 2 - Hazardous Ingredients

NOT AVAILABLE. We are not aware of any hazards associated with this product or its ingredients, but the chemical, physical, and toxicological properties of this product have not been investigated thoroughly. Observe normal laboratory precautions.

Section 3 - Physical Data

This product consists of purified protein in Tris-HCl buffer shipped on dry ice. The physical properties of this product have not been investigated thoroughly.

Section 4 - Fire and Explosion Hazard

NOT APPLICABLE

Section 5 - Reactivity Data

NOT APPLICABLE

Section 6 - Toxicological Properties

May be harmful by inhalation, ingestion, or skin absorption. The toxicological properties of this product have not been investigated thoroughly. Exercise due caution.

Section 7 - Preventative Measures

Wear chemical safety goggles and compatible chemical-resistant gloves. Avoid inhalation, contact with eyes, skin or clothing.

*****MULTIPLE COMPONENT SPILL OR LEAK PROCEDURES*****

- Wear protective equipment.
- Absorb on sand or vermiculite and place in closed containers for disposal.
- Dispose or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state and local environmental regulations.

Section 8 - First Aid Measures

- If swallowed, wash out mouth with water, provided person is conscious. Call a physician.
- In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. If a rash or other irritation develops, call a physician.
- If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.
- In case of eye contact, flush with copious amounts of water for at least 15 minutes while separating the eyelids with fingers. Call a physician.

Section 9 - Preparation

Prepared by: Assay Designs	Phone#: (734) 668-6113 Toll Free in North America (800) 833-8651	Created: 04/01/05	Modified: 03/01/07
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The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Stressgen shall not be held liable for any damage resulting from handling or from contact with the above product. See the Technical Specification, Packing Slip, Invoice, and Product Catalogue for additional terms and conditions of sale.