Active Akt3

CATALOG #: 7703-5

SOURCE: Sf 9 cells

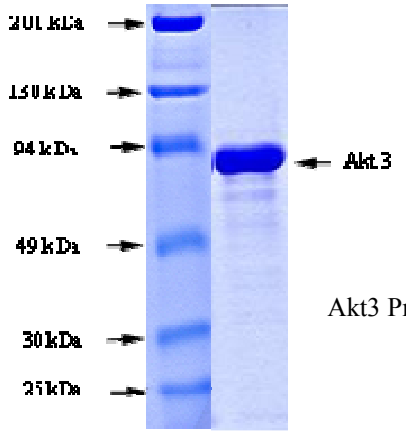
PURITY: 3 µg of Akt 3 protein was subjected to SDS-PAGE and Coomassie blue staining. The scan of the gel showed >92% purity of the Akt3 product, and the band was at ~84 kDa

SPECIFIC ACTIVITY: 206 nmol/min/mg

MOLECULAR WEIGHT: ~84 kDa.

FORMULATION: Recombinant proteins in storage buffer (50 mM Tris-HCl, pH 7.5, 150 mM NaCl, 0.25 mM DTT, 0.1 mM EGTA, 0.1 mM EDTA, 0.1 mM PMSF, 25% glycerol).

STORAGE CONDITIONS: Store product frozen at or below -70°C. Stable for 1 year at -70°C as undiluted stock. Aliquot to avoid repeated thawing and freezing.



Akt3 Protein Gel

BACKGROUND DESCRIPTION: Akt 3 or Protein Kinase B γ (PKBγ) is a serine/threonine kinase that is a member of the Akt family. In mammals, the Akt family comprises of three highly homologous members known as Akt1 (PKB), Akt2 (PKB), and Akt 3 (PKBγ). Akt 3 like the other family members is activated in cells exposed to diverse stimuli such as hormones, growth factors, and extracellular matrix components. The activation mechanism remains to be fully characterized but occurs downstream of phosphoinositide 3-kinase (PI3K). PI3K generates phosphatidylinositol-3,4,5-trisphosphate (PIP3), a lipid second messenger essential for the translocation of Akt family members to the plasma membrane where they are phosphorylated and activated by phosphoinositide-dependent kinase-1 (PDK-1) and phosphoinositide-dependent kinase-2 (PDK-2 possibly ILK). Akt 3 like the other family members phosphorylates and regulates the function of many cellular proteins involved in processes that include cellular metabolism, survival/apoptosis, and proliferation. Recent evidence indicates that Akt 3 is frequently overexpressed in many types of human cancers including breast and prostate. Although the mechanisms have not yet been fully characterized, increased expression and activation of Akt is believed to promote cell proliferation and survival thereby contributing to cancer progression.

ACTIVITY: 206 nmol phosphate incorporated into Akt substrate peptide per minute per mg protein at 30°C for 15 minutes using a final concentration of 50 µM ATP and total of 0.83 µCi/µl P-32.

RELATED PRODUCTS:

- Akt activated cell lysate **(Cat. No. 7036-1)**
- Akt Inhibitor **(Cat. No. 1701-1)**
- Akt Inhibitor, Isozyme Selective **(Cat. No. 1708-1)**
- Akt negative control cell lysate **(Cat. No. 7035-1)**
- Active Akt2 **(Cat. No. 7702-5)**

FOR RESEARCH USE ONLY! Not to be used in humans.