

PIP5K2 β

Phosphatidylinositol-4-phosphate 5-kinase, Type II, beta isoform human, recombinant, Baculovirus

Cat. No.	Amount
PR-852	5 μ g

For *in vitro* use only
Quality guaranteed for 12 months
Store at -80°C

Avoid freeze / thaw cycles

Form

Liquid. Supplied in 20 mM Tris-HCl pH 8.0, 20% glycerol, 100 mM KCl, 1 mM DTT and 0.2 mM EDTA.

Application

1 μ g of PIP5K2 β is sufficient to phosphorylate 1 μ g of heat-inactivated nuclear or cytoplasmic extract.

Molecular Weight

46 kDa

Purity

> 95% by SDS-PAGE

Description

The protein catalyzes the phosphorylation of phosphatidylinositol-5-phosphate on the fourth hydroxyl of the myo-inositol ring to form phosphatidylinositol-4,5-bisphosphate.

The gene is a member of the phosphatidylinositol-4-phosphate 5-kinase family. The encoded protein sequence does not show similarity to other kinases, but the protein does exhibit kinase activity. Additionally, the encoded protein interacts with p55 TNF receptor. Two transcript variants encoding different isoforms have been found for this gene. Pip5k2 beta, is amplified in a subset of breast cancer cell lines and primary breast cancer samples that carry HER-2/Neu amplification. It has been implicated that Pip4k2beta has a role in the development and/or progression of breast cancer.

The PIP5K β was expressed in a Baculovirus system and purified by affinity and FPLC chromatography.

Selected References:

Luoh *et al.* (2004) Overexpression of the amplified Pip4k2beta gene from 17q11-12 in breast cancer cells confers proliferation advantage. *Oncogene* **23**:1354.

Castellino *et al.* (1997) A novel interaction between the juxtamembrane region of the p55 tumor necrosis factor receptor and phosphatidylinositol-4-phosphate 5-kinase. *J. Biol. Chem.* **272**:5861.