

## PI3Kb Human

**Description:** Phosphoinositide 3-kinase beta Human Recombinant is a glycosylated protein having a molecular weight as follows: p85 chain 83.5 kDa, p110 chain 124.3 kDa.

**Catalog #:** PKPS-340

**Synonyms:** Phosphoinositide 3-kinase beta p110/p85, PI3K , PI3Kb.

For research use only.

**Source:** Sf9 insect cells.

**Physical Appearance:** Sterile filtered liquid formulation.

**Purity:** Greater than 90.0% as determined by SDS Page.

**Formulation:**

0.9 mg/ml solution in PBS and 2mM MgCl<sub>2</sub>.

**Stability:**

PI3Kb although stable at 4°C for 1 week, should be stored desiccated below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

**Usage:**

NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

**Introduction:**

The PI3Kb isoform can be activated by insulin via the insulin receptor to initiate a cascade of events that control cell growth and metabolism. The activation of PI3Kb is mediated by the p85 regulatory subunit binding to tyrosine phosphorylated insulin receptor substrate (IRS) proteins (e.g. IRS-1 and IRS-2). It was also shown that PI3Kb is involved in apoptosis in human colon carcinoma cells. Injection of neutralizing antibodies specific to p110b in WiDr, HCT116 and CO 115 adenocarcinoma cells inhibited de novo DNA synthesis. PI3Kb is the major PI3K isoform required for apoptotic cell and Fc-g receptor mediated phagocytosis shown for primary mouse macrophages and the Jurkat human leukemia T cell line. It was shown by several research groups that the catalytic subunit of PI3Kb can be activated by Gβγ subunits of G-protein coupled receptors.

**Biological Activity:**

The specific activity was found to be 3,000 units/mg (1 unit is defined as 1 picomole phosphate transferred to PIP<sub>2</sub> per minute).

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