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## Product Data Sheet

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Product Name: PI3Kb Human  
Cat. No.: GP22583  
Batch No.: 1

### Product Data

Purity	>98%	Source	Sf9 insect cells.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Phosphoinositide 3-kinase beta p110b/p85a; PI3Kb; PI3Kb.		
Formulation	0.9 mg/ml solution in PBS and 2mM MgCl <sub>2</sub> .		

### 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-gamma 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 Gbeta 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).

### Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

### Background

Phosphoinositide 3-kinase beta Human Recombinant is a glycosylated protein having a

**Caution: Product has not been fully validated for medical applications. For research use only.**

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molecular weight as follows: p85a chain 83.5 kDa, p110b chain 124.3 kDa.

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