

Product Information

PI3K (p110- α /p55- γ) active, His-tagged, human PRECISIO® Kinase recombinant, expressed in *Sf9* cells

Catalog Number **SRP5319**
Storage Temperature $-70\text{ }^{\circ}\text{C}$

Synonyms:

p110- α : p110a, PI3K, p110-alpha
p55- γ : p55g, PIK3R3, p55, p55-GAMMA, FLJ41892

Product Description

PI3K (p110- α / p55- γ) or Phosphatidylinositol 3-kinase is a lipid kinase that phosphorylates the inositol ring of phosphatidylinositol at the 3' position, which serves as a second messenger in growth signaling pathways. PI3K contains a 110 kDa catalytic subunit and a regulatory subunit of either 85, 55, or 50 kDa. Phosphatidylinositol 3-kinase plays an important role in the metabolic actions of insulin, and a mutation in the PI3K has been associated with insulin resistance and plays an important role in glucose homeostasis *in vivo*.¹ PI3K also plays an essential role in the development and induction of mast cells in normal and pathogenic immune responses.²

Recombinant full-length human PI3K (p110- α / p55- γ) was co-expressed by baculovirus in *Sf9* insect cells using an N-terminal His-tag. The p110- α gene accession number is NM_006218; p55- γ is BC021622. It is supplied in 50 mM sodium phosphate, pH 7.0, 300 mM NaCl, 150 mM imidazole, 0.1 mM PMSF, 0.25 mM DTT, and 25% glycerol.

Molecular mass:

p110- α ~111kDa
p55- γ ~61

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

The product ships on dry ice and storage at $-70\text{ }^{\circ}\text{C}$ is recommended. After opening, aliquot into smaller quantities and store at $-70\text{ }^{\circ}\text{C}$. Avoid repeated handling and multiple freeze/thaw cycles.

Figure 1.

SDS-PAGE Gel of Typical Lot:
 $\geq 70\%$ (SDS-PAGE, densitometry)

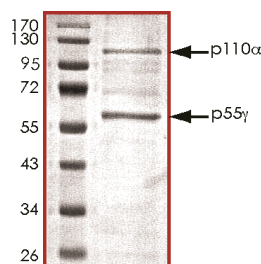
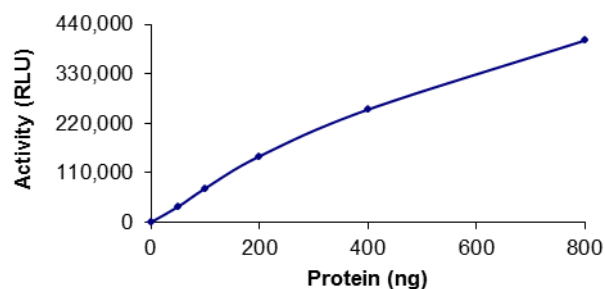


Figure 2.

Specific Activity of Typical Lot:
11.2–16.8 nmole/min/mg



Kinase activity was determined with a luminescent assay procedure.

References

1. Terauchi, Y. et al., Increased insulin sensitivity and hypoglycaemia in mice lacking the p85-alpha subunit of phosphoinositide 3-kinase. *Nature Genet.*, **21**, 230-235 (1999).
2. Fukao, T. et al., Selective loss of gastrointestinal mast cells and impaired immunity in PI3K-deficient mice. *Nature Immun.*, **3**, 295-304 (2002).

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