

Product Information

**PI3K (p110 β /p85 β), active, His-tagged, human
PRECISIO® Kinase
recombinant, expressed in *Sf9* cells**

Catalog Number **SRP5295**
Storage Temperature -70°C

Synonyms:

p110 β : PI3K, PIK3C1, PI3Kbeta, MGC133043,
p110-BETA, DKFZp779K1237
p85 β : PIK3R2, P85B, p85-BETA

Product Description

PI3K phosphorylates the 3' OH position of the inositol ring of inositol lipids, which function in signaling pathways that regulate cell growth by virtue of their activation in response to various mitogenic stimuli. PI3Ks are composed of a 110 kDa catalytic subunit and a 85 kDa adaptor subunit.¹ PI3K plays a critical role in regulating the formation and stability of $\alpha 2\text{B}-\beta 3$ integrin adhesion bonds, which are necessary for shear force-induced platelet activation. PI3K sustains $\alpha 2\text{B}-\beta 3$ integrin activation and stabilized platelet aggregation by regulating both integrin-dependent calcium flux and Gi activation of RAP1B.²

Recombinant full-length human p110b and human p85b were co-expressed by baculovirus in *Sf9* insect cells using an N-terminal His-tag on both proteins. The p110b gene accession number is NM_006219; p85b is NM_005027. 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 β ~111 kDa
p85 β ~88 kDa

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°C is recommended. After opening, aliquot into smaller quantities and store at -70°C . Avoid repeated handling and multiple freeze/thaw cycles.

Figure 1.

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

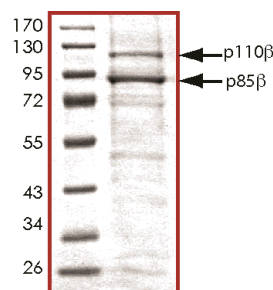
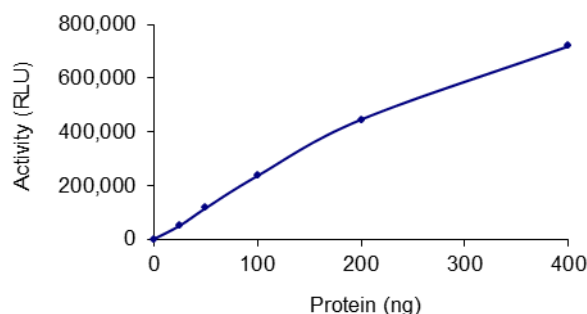


Figure 2.

Specific Activity of Typical Lot: 22.4–33.6 nmole/min/mg



Kinase activity was determined with a luminescent assay procedure.

References

1. Hu, P. et al., Cloning of a novel, ubiquitously expressed human phosphatidylinositol 3-kinase and identification of its binding site on p85. *Molec. Cell. Biol.*, **13**, 7677-7688 (1993).
2. Jackson, S.P. et al., PI 3-kinase p110-beta: a new target for antithrombotic therapy. *Nature Med.*, **11**, 507-514 (2005).

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RC,MAM 03/13-1