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Product Information

PHOSPHOINOSITIDE 3-KINASE P110 GAMMA, HUMAN RECOMBINANT

PI3K p110 γ

Product Number **P 8615**
Storage Temperature $-70\text{ }^{\circ}\text{C}$

Product Description

Phosphoinositide 3-kinase p110 γ is a human recombinant phosphoinositide 3-kinase (PI3K) containing 6 His-residues at the C-terminus, expressed in insect cells. PI3Ks catalyze the phosphorylation of phosphoinositides at the 3 position of the inositol ring. Phosphoinositide 3-kinase p110 γ is the only known class I β kinase.

PI3Ks are a ubiquitously expressed family of enzymes that, through the generation of phospholipid secondary messengers, play a major role in the regulation of many important cellular processes such as mitogenesis, apoptosis, and cytoskeletal functions.

Components/Reagents

Solution containing approximately 1 mg/ml protein in 25 mM HEPES, pH 7.4, 100 mM NaCl, 0.5 mM MgCl₂, and 50% glycerol. Phosphoinositide 3-kinase p110 γ is $\geq 95\%$ pure by SDS-PAGE.

Specific Activity

The specific activity of Phosphoinositide 3-kinase p110 γ will vary from lot to lot. The actual activity is reported on the label.

Unit Definition

One unit of phosphoinositide 3-kinase p110 γ will incorporate 1.0 nmol of phosphate into phosphatidylinositol per minute using at pH 7.4 at 37 $^{\circ}\text{C}$.

Precautions and Disclaimer

Please consult the Material Safety Data Sheet for handling recommendations before working with this material.

Storage/Stability

The product should be stored at $-70\text{ }^{\circ}\text{C}$. Avoid freeze-thaw cycles.

References

1. Leopoldt, D., et al., G $\beta\gamma$ stimulates phosphoinositide 3-kinase- γ by direct interaction with two domains of the catalytic p110 subunit. *J. Biol. Chem.*, **273**, 7024–7029 (1998).
2. Lopez-Illasaca, M., et al., Linkage of G protein-coupled receptors to the MAPK signaling pathway through PI 3-kinase gamma. *Science*, **275**, 394–397 (1997).
3. Stoyanov, B., et al., Cloning and characterization of a G protein-activated human phosphoinositide-3 kinase. *Science*, **269**, 690–693 (1995).
4. Stoyanova, S., et al., Lipid kinase and protein kinase activities of G-protein-coupled phosphoinositide 3-kinase gamma: structure-activity analysis and interactions with wortmannin. *Biochem. J.*, **324**, 489–495 (1997).

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