

Active Recombinant Human PIK3CG & PIK3R5 protein

Cat. No. PIK3CG-31759TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human PIK3CG & PIK3R5 was expressed in Insect cells.
Species	Human
Source	Insect Cells
Description	PI3 Kinase catalytic subunit gamma belongs to a family of lipid kinases that are implicated in signal transduction. It is an important modulator of extracellular signals, including those elicited by E-cadherin-mediated cell-cell adhesion, which plays an important role in maintenance of the structural and functional integrity of epithelia. In addition to its role in promoting assembly of adherens junctions, the protein is thought to play a pivotal role in the regulation of cytotoxicity in NK cells. It forms a heterodimer of a catalytic subunit (PI3 Kinase catalytic subunit gamma/p120) with the regulatory (PIK3R5/p101) subunit. PIK3R5 is a receptor-regulated class I phosphoinositide 3-kinases (PI3Ks) phosphorylate the membrane lipid phosphatidylinositol 4,5-bisphosphate (PtdIns(4,5)P2) to PtdIns(3,4,5)P3, which in turn recruits and activates cytosolic effectors involved in proliferation, survival, or chemotaxis. PIK3R5 is a PI3K regulatory subunit.
Form	50% Glycerol, 25mM Sodium chloride, 25mM HEPES, 2.5mM Magnesium chloride, pH 8.0
Bio-activity	~ 3 nmol/mg/min using phosphatidylinositol as the substrate.
Notes	For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

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Please prevent freeze-thaw cycles.

Storage Upon delivery aliquot and store at -20 centigrade. Avoid freeze / thaw cycles.

Concentration 5 g at 0.5 mg/ml

GENE INFORMATION

Gene Name PIK3CG phosphoinositide-3-kinase, catalytic, gamma polypeptide [Homo sapiens]

Official Symbol PIK3CG

Synonyms PIK3CG; phosphoinositide-3-kinase, catalytic, gamma polypeptide; phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit gamma isoform; p110gamma; p120-PI3K; PI3K-gamma; p110-gamma; PI3-kinase subunit gamma; ptdIns-3-kinase subunit gamma; 1-phosphatidylinositol 3-kinase; ptdIns-3-kinase subunit p110-gamma; serine/threonine protein kinase PIK3CG; phosphatidylinositol 3 kinase gamma, p110 gamma; phosphoinositide-3-kinase gamma catalytic subunit; phosphatidylinositol 3-kinase catalytic 110-kD gamma; phosphatidylinositol 3-kinase, catalytic, gamma polypeptide; phosphatidylinositol-4,5-bisphosphate 3-kinase 110 kDa catalytic subunit gamma; PI3K; PIK3; PI3CG; PI3Kgamma;

Gene ID 5294

mRNA Refseq NM_002649

Protein Refseq NP_002640

MIM 601232

UniProt ID P48736

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Chromosome Location	7q22
Pathway	3-phosphoinositide biosynthesis, organism-specific biosystem; 3-phosphoinositide biosynthesis, conserved biosystem; Acute myeloid leukemia, organism-specific biosystem; Acute myeloid leukemia, conserved biosystem; Aldosterone-regulated sodium reabsorption, organism-specific biosystem; Aldosterone-regulated sodium reabsorption, conserved biosystem; Alpha6-Beta4 Integrin Signaling Pathway, organism-specific biosystem;
Function	1-phosphatidylinositol-3-kinase activity; ATP binding; binding; ephrin receptor binding; nucleotide binding; phosphatidylinositol 3-kinase activity; phosphatidylinositol-4,5-bisphosphate 3-kinase activity; protein kinase activity; protein serine/threonine kinase activity;

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