

Recombinant Human PIK3CG, GST-tagged

Cat. No. PIK3CG-55H Lot. No. (See product label)

SPECIFICATION

Product Overview

The Recombinant Human phosphoinositide-3-kinase, catalytic, gamma polypeptide produced in *Sf9 insect cells* is a catalytically inactive mutant of PI3Ky with a D946A mutation in the ATP binding site. This recombinant catalytically inactive protein can be used as a negative control in any kind of PI3Ky kinase activity studies. Recombinant full length PI3KyDA mutant (126.3 kDa without Tag) carries a N-terminal GST-Tag which facilitates the protein's application in typical GST pull-down assays.

Species

Human

Source

Sf9 Cells

Description

This gene encodes a protein that belongs to the pi3/pi4-kinase family of proteins. The gene product is an enzyme that phosphorylates phosphoinositides on the 3-hydroxyl group of the inositol ring. 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. The gene is located in a commonly deleted segment of chromosome 7 previously identified in myeloid leukemias.

Physical Appearance

Sterile filtered liquid formulation.

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Purity	Greater than 95.0% as determined by SDS Page.
Formulation	0.5mg/ml solution in 25mM Tris, pH 8.0, 50mM NaCl, 0.5mM MgCl ₂ , and 50% glycerol.
Storage	PI3Kb although stable at 14°C for 1 week, should be stored desiccated below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.
Full Length	Full L.

GENE INFORMATION

Gene Name	PIK3CG phosphoinositide-3-kinase, catalytic, gamma polypeptide [Homo sapiens]
Synonyms	PIK3CG; phosphoinositide-3-kinase, catalytic, gamma polypeptide; PI3K; PI3Kgamma; Phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit gamma isoform; EC2.7.1.153; PI3-kinase p110 subunit gamma; PI3Kgamma; p120-PI3K; p110-gamma; PI3Kgamma; 1-phosphatidylinositol 3-kinase; PtdIns-3-kinase subunit p110; phosphatidylinositol 3 kinase gamma, p110 gamma; phosphatidylinositol 3-kinase catalytic 110-kD gamma; phosphatidylinositol 3-kinase, catalytic, gamma polypeptide; phosphoinositide-3-kinase gamma catalytic subunit
Gene ID	5294
mRNA Refseq	NM_002649
Protein Refseq	NP_002640
UniProt ID	P48736

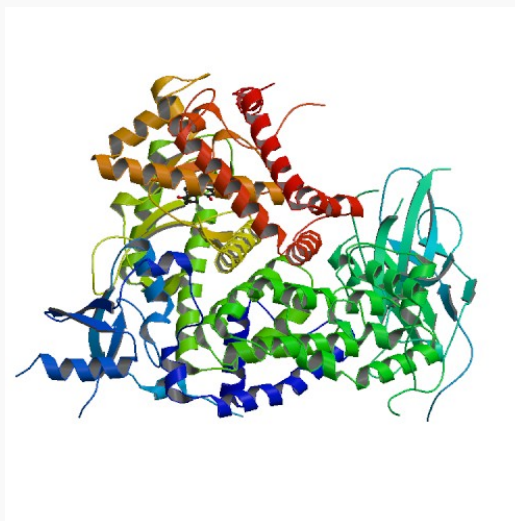
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Chromosome Location	7q
MIM	601232
Pathway	Acute myeloid leukemia; Apoptosis; B cell receptor signaling pathway; Chemokine signaling pathway; Chronic myeloid leukemia; Colorectal cancer; Endometrial cancer; ErbB signaling pathway; Fc epsilon RI signaling pathway; Fc gamma R-mediated phagocytosis; Focal adhesion; Glioma; Inositol phosphate metabolism; Insulin signaling pathway; Jak-STAT signaling pathway; Natural killer cell mediated cytotoxicity; Leukocyte transendothelial migration; Melanoma; Non-small cell lung cancer; Pancreatic cancer; Pathways in cancer; Phosphatidylinositol signaling system; Prostate cancer; Regulation of actin cytoskeleton; Renal cell carcinoma; Small cell lung cancer; T cell receptor signaling pathway; Toll-like receptor signaling pathway; Type II diabetes mellitus; VEGF signaling pathway; VEGF signaling pathway; mTOR signaling pathway; Hemostasis; Signaling by GPCR
Function	1-phosphatidylinositol-3-kinase activity; ATP binding; inositol or phosphatidylinositol kinase activity; nucleotide binding; phosphatidylinositol-4,5-bisphosphate 3-kinase activity; phosphotransferase activity, alcohol group as acceptor; protein binding; transferase activity

PDB rendering based
on 17eu.



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