

Recombinant Human PIK3CD, GST-tagged

Cat. No. PIK3CD-52H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human PIK3CD produced in Sf9 carries a GST-Tag which facilitates the protein's application in typical GST pull-down assays and the heterodimer was purified by affinity chromatography. The molecular weight for p110 δ chain is 120.2 kDa (without Tag) and the p85 α chain 83.5 kDa.
Species	Human
Source	Sf9 Cells
Description	The class IA PI3K δ is expressed in endothelial and in white blood cells. Recently it was shown that the inactivation of PI3K δ in bone marrow mast cells (BBMCs) leads to defective stem cell factor-mediated proliferation, adhesion and migration of these cells, and to impaired allergen-IgE-induced degranulation and cytokine release. In neutrophils a role for PI3K δ in TNF α -induced signaling was demonstrated by a reduction in Akt phosphorylation and PDK1 activity upon treatment with the d-specific inhibitor IC87114.
Physical Appearance	Sterile filtered liquid formulation.
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.

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Biological Activity	3 nmol/mg/min using phosphatidylinositol as the substrate.
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.
GENE INFORMATION	
Gene Name	PIK3CD phosphoinositide-3-kinase, catalytic, delta polypeptide [Homo sapiens]
Synonyms	PIK3CD; phosphoinositide-3-kinase, catalytic, delta polypeptide; PI3K; p110D; P110DELTA; catalytic phosphatidylinositol 3-kinase delta; phosphoinositide-3-kinase C; PI3-kinase p110 subunit delta; phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit delta; EC 2.7.1.153; Phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit delta isoform; PtdIns-3-kinase p110; p110delta; OTTHUMP00000001595
Gene ID	5293
mRNA Refseq	NM_005026
Protein Refseq	NP_005017
MIM	602839
UniProt ID	O00329
Chromosome Location	1p36.2
Pathway	Acute myeloid leukemia; Apoptosis; B cell receptor signaling pathway; Chemokine

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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; Leukocyte transendothelial migration; Melanoma; Natural killer cell mediated cytotoxicity; Neurotrophin signaling pathway; 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; mTOR signaling pathway

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