

Recombinant Human phosphatidylinositol-4-phosphate 5-kinase, type I, GST-tagged

Cat. No. PIP5K1C-1083H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full-length human PIP5K1C was expressed by baculovirus in Sf9 insect cells using an N-terminal GST tag.
Species	Human
Source	Sf9 Cells
Description	PIP5K1C or phosphatidylinositol-4-phosphate 5-kinase 1 gamma phosphorylates phosphatidylinositol-4-phosphate to form phosphatidylinositol 4,5-bisphosphate. PIP5K1C is found at synapses and has been found to play roles in endocytosis and cell migration. PIP5K1C directly associates with β -catenin and increases β -catenin activity downstream of growth factor stimulation. PIP5K1C expression and kinase activity enhance β -catenin phosphorylation on residues that promote nuclear importation and transcriptional activity. PIP5K1C deficiency impairs neutrophil recruitment as a result of defect in adhesion. PIP5K1C regulated the adhesion through facilitating RhoA GTPase and integrin activation by chemoattractants.
Applications	Kinase Assay; Western Blot
Molecular Weight	120 kDa
Expression System	Sf9 insect cells using baculovirus
Form	Recombinant protein stored in 50mM Tris-HCL, pH 7.5, 150 mM NaCl, 10 mM

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

	glutathione, 0.1 mM EDTA, 0.25 mM DTT, 0.1 mM PMSF, 0 25% glycerol.
Specific Activity	220 nmol/min/mg
Purity	> 80 %
Concentration	0.1 ug/ul
Sequences	Full length
Storage	Store product at –70oC. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.
Pathways	3-phosphoinositide biosynthesis; Arf6 trafficking events; Axon guidance; B Cell Receptor Signaling Pathway; E-cadherin signaling in the nascent adherens junction; Endocytosis; Fc gamma R-mediated phagocytosis; Focal Adhesion; Inositol phosphate metabolism; Metabolic pathways; N-cadherin signaling events; Phosphatidylinositol signaling system; Regulation of Actin Cytoskeleton; RhoA signaling pathway; Stabilization and expansion of the E-cadherin adherens junction; superpathway of inositol phosphate compounds

GENE INFORMATION

Gene Name	PIP5K1C phosphatidylinositol-4-phosphate 5-kinase, type I, gamma [Homo sapiens]
Official Symbol	PIP5K1C
Synonyms	PIP5K1C; phosphatidylinositol-4-phosphate 5-kinase, type I, gamma; LCCS3; KIAA0589; PIPK1g_v4; PIP5Kgamma; PIP5K-GAMMA; phosphatidylinositol-4-phosphate 5-kinase type-1 gamma; PIP5K1-gamma; type I PIP kinase;

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diphosphoinositide kinase; ptdIns(4)P-5-kinase 1 gamma; Human homolog of mouse phosphatidylinositol-4-phosphate 5-kinase I-gamma

Gene ID [23396](#)

mRNA Refseq [NM_012398](#)

Protein Refseq [NP_036530](#)

MIM [606102](#)

UniProt ID [O60331](#)

Chromosome Location [19p13.3](#)

Function 1-phosphatidylinositol-4-phosphate 5-kinase activity; ATP binding; kinase activity; nucleotide binding; transferase activity

Rendering based on
PDB 3H1Z.

