

Active Recombinant Human PIP5K1A protein, GST-tagged

Cat. No. PIP5K1A-170H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human PIP5K1A fused with an N-terminal GST tag was expressed in Insect cells.
Species	Human
Source	Insect Cells
Description	PIP5K1A or phosphatidylinositol-4-phosphate 5-kinase 1 alpha phosphorylates phosphatidylinositol-4-phosphate to form phosphatidylinositol 4,5-bisphosphate. PIP5K1 is required for Wnt3a-induced LRP6 phosphorylation at ser1490 in mammalian cells. Wnt3a stimulates the formation of phosphatidylinositol 4,5-bisphosphates through 'frizzled' and 'dishevelled', the latter of which directly interacts with and activates PIP5K1. PIP5K1A-mediated PIP production is crucial for HIV-1 entry and the early steps of infection in permissive lymphocytes. Overexpression of wild-type PI4P5K1A increases HIV-1 Env-mediated PIP production and enhances viral replication in primary lymphocytes.
Form	50mM Tris-HCl, pH 7.5, 150mM NaCl, 10mM glutathione, 0.1mM EDTA, 0.25mM DTT, 0.1mM PMSF, 25% glycerol.
Bio-activity	3660 nmol/min/mg
Molecular Mass	86 kDa
Purity	>90%

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Applications	Kinase Assay
Stability	1 year at -70 centigrade from the date of shipment
Storage	Store product at –70 centigrade. 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.
Concentration	0.1µg/µl

GENE INFORMATION

Gene Name	PIP5K1A phosphatidylinositol-4-phosphate 5-kinase, type I, alpha [Homo sapiens]
Official Symbol	PIP5K1A
Synonyms	PIP5K1A; phosphatidylinositol-4-phosphate 5-kinase, type I, alpha; phosphatidylinositol-4-phosphate 5-kinase type-1 alpha; PIP5KIalpha; PIP5K1-alpha; ptdIns(4)P-5-kinase 1 alpha; 68 kDa type I phosphatidylinositol-4-phosphate 5-kinase alpha;
Gene ID	8394
mRNA Refseq	NM_001135636
Protein Refseq	NP_001129108
MIM	603275
UniProt ID	Q99755

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Chromosome Location	1q21.3
Pathway	3-phosphoinositide biosynthesis, organism-specific biosystem; 3-phosphoinositide biosynthesis, conserved biosystem; Arf1 pathway, organism-specific biosystem; Arf6 downstream pathway, organism-specific biosystem; B Cell Receptor Signaling Pathway, organism-specific biosystem; D-myo-inositol (1,4,5)-trisphosphate biosynthesis, organism-specific biosystem; D-myo-inositol (1,4,5)-trisphosphate biosynthesis, conserved biosystem;
Function	1-phosphatidylinositol-4-phosphate 5-kinase activity; 1-phosphatidylinositol-4-phosphate 5-kinase activity; ATP binding; kinase binding; nucleotide binding; protein binding; transferase activity;
	