

Active Recombinant Human PIP5K1A, GST-tagged

Cat. No. PIP5K1A-1460H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full-length human PIP5K1A was expressed by baculovirus in Sf9 insect cells using an N-terminal GST tag.
Species	Human
Source	Sf9 Cells
ProteinLength	Full length
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 activated PIP5KI. PIP5K1A-mediated PIP(2) 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(2) production and enhances viral replication in primary lymphocytes.
Form	Recombinant protein stored in 50mM Tris-HCl, pH 7.5, 150mM NaCl, 10mM glutathione, 0.1mM EDTA, 0.25mM DTT, 0.1mM PMSF, 25% glycerol.
Bio-activity	1310nmol/min/mg
Molecular Mass	~86 kDa

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Purity	>90%
Applications	Kinase Assay, Western Blot
Storage	Store at –70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. Avoid 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
Chromosome	1q21.3

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Location	
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;

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