

Recombinant Human Phosphatidylinositol-4-Phosphate 5-Kinase, Type I, GST-tagged

Cat. No. PIP5K1A-1082H **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
Description	PIP5K1A or phosphatidylinositol-4-phosphate 5-kinase 1 alpha phosphorylates phosphatidylinositol-4-phosphate to form phosphatidylinositol 4, 5-bisphosphate. PIP5K1A 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 PIP5KI. PIP5K1A-mediated PIP.
Applications	Kinase Assay; Western Blot
Molecular Weight	86 kDa
Expression System	Sf9 insect cells using baculovirus
Form	Recombinant protein stored in 50mM Tris-HCL, pH 7.5, 150 mM NaCl, 10 mM glutathione, 0.1 mM EDTA, 0.25 mM DTT, 0.1 mM PMSF, 0 25% glycerol.
Specific Activity	1310 nmol/min/mg

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Purity	> 90 %
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; Arf1 pathway; Arf6 downstream pathway; B Cell Receptor Signaling Pathway; D-myo-inositol (1,4,5)-trisphosphate biosynthesis; E-cadherin signaling in keratinocytes; Endocytosis; Fc gamma R-mediated phagocytosis; Inositol phosphate metabolism; Metabolic pathways; Osteopontin-mediated events; Phosphatidylinositol signaling system; RAC1 signaling pathway; Regulation of actin cytoskeleton; RhoA signaling pathway
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; OTTHUMP00000014289; OTTHUMP00000014290; OTTHUMP00000014291; OTTHUMP00000196331; OTTHUMP00000235065; ptdIns(4)P-5-kinase 1 alpha; 68 kDa type I phosphatidylinositol-4-phosphate 5-kinase alpha
Gene ID	8394

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mRNA Refseq	NM_001135636
Protein Refseq	NP_001129108
MIM	603275
UniProt ID	Q99755
Chromosome Location	1q21.3
Function	1-phosphatidylinositol-4-phosphate 5-kinase activity; ATP binding; kinase activity; kinase binding; nucleotide binding; protein binding; transferase activity

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