

PIP5K1A recombinant protein

PIP5K1A, Active

CATALOG #
AAA14257

PRODUCT SYNONYMS

PIP5K1A; Active; PIP5K1A recombinant protein

PRODUCT SPECIFICATIONS

Purity/Purification	>85%
Form/Format	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
Concentration	0.1 ug/ul (varies by lot)
Sequence Length	3628
Specific Activity	4,000 nmol/min/mg
Dry Ice Note	The product may be shipped with dry ice, and an additional fee may be added to your shipping cost.
Preparation and Storage	Store at -70 degree C. Stable for one year at -70 degree C upon receipt. 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.

IMAGES



Application Data

The purity of PIP5K1A was determined to be >85% by densitometry, approx. MW 86 kDa



Application Data

The specific activity of PIP5K1A was determined to be 4,000 nmol/min/mg as per activity assay protocol.

ADDITIONAL INFORMATION

Related Product Information for PIP5K1A recombinant protein	Description: Recombinant full-length human PIP5K1A was expressed by baculovirus in Sf9 insect cells using an N-terminal GST tag. Scientific Background: 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 (1). 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 (2). Overexpression of wild-type PI4P5K1A increases HIV-1 Env-mediated PIP (2) production and enhances viral replication in primary lymphocytes.
Product Categories/Family for PIP5K1A recombinant protein	Enzymes; Active Lipid Kinases

References	1. Pan, W. et al: Wnt3a-mediated formation of phosphatidylinositol 4,5-bisphosphate regulates LRP6 phosphorylation. Science 321: 1350-1353, 2008. 2. Barrero-Villar M, PI4P5-kinase Ialpha is required for efficient HIV-1 entry and infection of T cells. J Immunol. 2008 Nov 15;181 (10):6882-8.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	33871980
NCBI GeneID	8394
NCBI Official Full Name	Homo sapiens phosphatidylinositol-4-phosphate 5-kinase, type I, alpha, mRNA
NCBI Official Synonym Full Names	phosphatidylinositol-4-phosphate 5-kinase type 1 alpha
NCBI Official Symbol	PIP5K1A
NCBI Protein Information	phosphatidylinositol 4-phosphate 5-kinase type-1 alpha
UniProt Protein Name	Phosphatidylinositol 4-phosphate 5-kinase type-1 alpha
UniProt Gene Name	PIP5K1A
UniProt Synonym Gene Names	PIP5K1-alpha; PtdIns(4)P-5-kinase 1 alpha; PIP5KIalpha

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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 Online datasheet: <https://stage.aaabiotech.com/pip5k1a-recombinant-protein/14257>