3050 Spruce Street, St. Louis, MO 63103 USA
Tel: (800) 521-8956 (314) 771-5765 Fax: (800) 325-5052 (314) 771-5757
email: techservice@sial.com sigma-aldrich.com

Product Information

PIP4K2A, active, GST-tagged, human
PRECISIO® Kinase
recombinant, expressed in *Sf*9 cells

Catalog Number **SRP5296**
Storage Temperature –70 °C

Synonyms: FLJ13267, PI5P4KA, PIP5K2A, PIP5KII-alpha, PIP5KIIA, PIPK

Product Description

PIP4K2A or phosphatidylinositol-5-phosphate 4-kinase, type II, alpha, is a member of the phosphatidylinositol-5-phosphate 4-kinase family that catalyzes the phosphorylation of phosphatidylinositol-5-phosphate on the fourth hydroxyl of the *myo*-inositol ring to form phosphatidylinositol-4,5-bisphosphate.[1] PIP4K2A plays as essential role in the phosphoinositide signal transduction cascades as the precursor to second messengers and is involved in the regulation of secretion, cell proliferation, differentiation, and motility.[2] PIP4K2A may be one of the factors related to the regulation of the beta-globin gene expression and the different levels of Hb H in alpha-thalassemic patients.

Recombinant full-length human PIP4K2A was expressed by baculovirus in *Sf*9 insect cells using an N-terminal GST-tag. The PIP4K2A gene accession number is NM_005028. It is supplied in 50 mM Tris-HCl, pH 7.5, 150 mM NaCl, 10 mM glutathione, 0.1 mM EDTA, 0.25 mM DTT, 0.1 mM PMSF, and 25% glycerol.

Molecular mass: ~76 kDa

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

The product ships on dry ice and storage at –70 °C is recommended. After opening, aliquot into smaller quantities and store at –70 °C. Avoid repeated handling and multiple freeze/thaw cycles.

Figure 1.
SDS-PAGE Gel of Typical Lot:
≥70% (SDS-PAGE, densitometry)

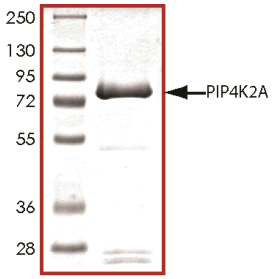
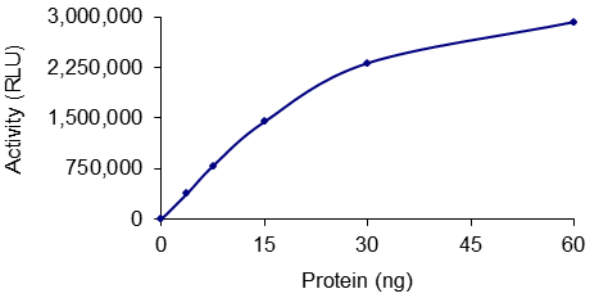


Figure 2.
Specific Activity of Typical Lot:
1,680–2,520 nmole/min/mg



Kinase activity was determined with a luminescent assay procedure.

References

1. Boronenkov, I.V. et al., The sequence of phosphatidylinositol-4-phosphate 5-kinase defines a novel family of lipid kinases. J. Biol. Chem., **270**, 2881-2884 (1995).
2. Rameh, L.E. et al., A new pathway for synthesis of phosphatidylinositol-4,5-bisphosphate. Nature, **390**, 192-196 (1997).

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