# Recombinant Human PIP4K2A Protein (His Tag)

**Catalog Number: PKSH032888**

**Note:** *Centrifuge before opening to ensure complete recovery of vial contents.*

## Description

| | |
|---|---|
| **Species** | Human |
| **Mol_Mass** | 47.3 kDa |
| **Accession** | P48426 |
| **Bio-activity** | Not validated for activity |

## Properties

| | |
|---|---|
| **Purity** | ＞95 % as determined by reducing SDS-PAGE. |
| **Endotoxin** | ＜1.0 EU per μg of the protein as determined by the LAL method. |
| **Storage** | Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 ℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at ＜-20℃ for 3 months. |
| **Shipping** | This product is provided as lyophilized powder which is shipped with ice packs. |
| **Formulation** | Lyophilized from a 0.2 μm filtered solution of 20mM PB,150mM NaCl,pH7.4. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual. |
| **Reconstitution** | Please refer to the printed manual for detailed information. |

## Data
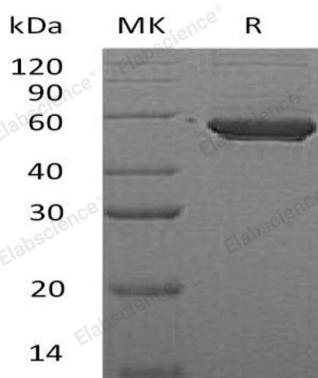


> 95 % as determined by reducing SDS-PAGE.

## Background

Phosphatidylinositol 5-phosphate 4-kinase type-2 alpha (PIP4K2A) is a member of the phosphatidylinositol-4-phosphate 5-kinase family. It contains 1 PIPK domain and is expressed ubiquitously, with high levels in the brain. It catalyzes the phosphorylation of phosphatidylinositol 5-phosphate (PtdIns5P) on the fourth hydroxyl of the myo-inositol ring, to form phosphatidylinositol 4,5-bisphosphate (PtdIns(4,5)P2). It may exert its function by regulating the levels of PtdIns5P, which functions in the cytosol by increasing AKT activity and in the nucleus signals through ING2. It may regulate the pool of cytosolic PtdIns5P in response to the activation of tyrosine phosphorylation, negatively regulate insulin-stimulated glucose uptake by lowering the levels of PtdIns5P. It also involved in thrombopoiesis, and the terminal maturation of megakaryocytes and regulation of their size.

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