Data Sheet (Cat.No.TMPJ-00978)

TargetMol

PIP4K2A Protein, Human, Recombinant (His)

General Information

Synonyms:	Diphosphoinositide kinase 2-α;PtdIns(5)P-4-kinase isoform 2-alpha;PIP5KIII; Phosphatidylinositol 5-phosphate 4-kinase type II α;1-phosphatidylinositol 5-phosphate 4-kinase 2-alpha;Phosphatidylinositol 5-phosphate 4-kinase type II alpha;1-phosphatidylinositol 5-phosphate 4-kinase 2-α;PtdIns(5)P-4-kinase isoform 2-α;PtdIns(4)P-5-kinase B isoform;Diphosphoinositide kinase 2-alpha;PtdIns(4)P-5-kinase C isoform
Protein Construction:	Met1-Thr406
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P48426
Molecular Weight:	52-58 KDa (reducing condition)
AA Sequence:	Met1-Thr406

QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	Greater than 95% as determined by reducing SDS-PAGE. (QC verified)
Endotoxin:	< 0.1 ng/μg (1 EU/μg) as determined by LAL test.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing 20 mM PB, 150 mM NaCl, pH 7.4.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein 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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