

## Recombinant Human PIP4K2A Protein (A2-T406), Tag Free

**Cat. No.** PIP4K2A-0264H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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| <b>Product Overview</b> | Recombinant Human GG-PIP4K2A(A2-T406 end) Protein was expressed in E. coli.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>ProteinLength</b>    | A2-T406                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Description</b>      | <p>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)P<sub>2</sub>) (). Has both ATP- and GTP-dependent kinase activities. 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. May regulate the pool of cytosolic PtdIns5P in response to the activation of tyrosine phosphorylation. Required for lysosome-peroxisome membrane contacts and intracellular cholesterol transport through modulating peroxisomal PtdIns(4,5)P<sub>2</sub> level. In collaboration with PIP4K2B, has a role in mediating autophagy in times of nutrient stress. Required for autophagosome-lysosome fusion and the regulation of cellular lipid metabolism. May be involved in thrombopoiesis, and the terminal maturation of megakaryocytes and regulation of their size. Negatively regulates insulin signaling through a catalytic-independent mechanism. PIP4Ks interact with PIP5Ks and suppress PIP5K-mediated PtdIns(4,5)P<sub>2</sub> synthesis and insulin-dependent conversion to PtdIns(3,4,5)P<sub>3</sub>.</p> |
| <b>Form</b>             | Liquid                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

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|                       |                                                                                                                                                                     |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Endotoxin</b>      | < 0.01 EU per µg of the protein                                                                                                                                     |
| <b>Purity</b>         | 90%                                                                                                                                                                 |
| <b>Stability</b>      | Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade.                                                                           |
| <b>Storage</b>        | Store it under sterile conditions at -20 to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. |
| <b>Storage Buffer</b> | Supplied as sterile 50 mM Tris-HCl (pH7.5), 200 mM NaCl, 20% glycerol                                                                                               |
| <b>Shipping</b>       | It is shipped out with blue ice.                                                                                                                                    |

## GENE INFORMATION

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|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | PIP4K2A phosphatidylinositol-5-phosphate 4-kinase, type II, alpha [ Homo sapiens (human) ]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Official Symbol</b> | PIP4K2A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Synonyms</b>        | PIP4K2A; phosphatidylinositol-5-phosphate 4-kinase, type II, alpha; phosphatidylinositol 4 phosphate 5 kinase, type II, alpha, PIP5K2A; phosphatidylinositol-5-phosphate 4-kinase type-2 alpha; PIP5KIIA; PIP5KIIalpha; PIP5KIII; PIP4KII-alpha; PI(5)P 4-kinase type II alpha; PtdIns(4)P-5-kinase B isoform; ptdIns(4)P-5-kinase C isoform; diphosphoinositide kinase 2-alpha; ptdIns(5)P-4-kinase isoform 2-alpha; 1-phosphatidylinositol-4-phosphate kinase; 1-phosphatidylinositol-4-phosphate-5-kinase; 1-phosphatidylinositol-5-phosphate 4-kinase 2-alpha; phosphatidylinositol-4-phosphate 5-kinase, type II, alpha; type II phosphatidylinositol-4-phosphate 5-kinase 53 K isoform; PIPK; PI5P4KA; PIP5K2A; FLJ13267; PIP5KII-alpha; |

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|----------------|-----------|
| Gene ID        | 5305      |
| mRNA Refseq    | NM_005028 |
| Protein Refseq | NP_005019 |
| MIM            | 603140    |
| UniProt ID     | P48426    |

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