

# Recombinant Human Phosphoinositide-3-Kinase, Catalytic, His-tagged

**Cat. No.** PIK3CG-1080H    **Lot. No.** (See product label)

## SPECIFICATION

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b>  | Recombinant full-length human PIK3CG (p120 gamma) was expressed by baculovirus in Sf9 insect cells using an N-terminal His tag.                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Species</b>           | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Source</b>            | Sf9 Cells                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>ProteinLength</b>     | 1-1102 aa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Description</b>       | PIK3CG (p120y) is a member of the PIK3CG family that phosphorylates phosphoinositides on the 3-hydroxyl group of the inositol ring. PIK3CG (p120y) is an important modulator of extracellular signals, including those elicited by E-cadherin-mediated cell-cell adhesion, which plays an important role in maintenance of the structural and functional integrity of epithelia. In addition to its role in promoting assembly of adherens junctions, PIK3CG (p120y) is thought to play a pivotal role in the regulation of cytotoxicity in NK cells. |
| <b>Applications</b>      | Kinase Assay; Western Blot                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Molecular Weight</b>  | 121kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Expression System</b> | Sf9 insect cells using baculovirus                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Form</b>              | Recombinant protein stored in 50mM sodium phosphate, pH 7.0, 300mM NaCl, 150                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

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|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                          | mM imidazole, 0.1 mM PMSF, 0.25 mM DTT, 25% glycerol.                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Specific Activity</b> | 52 nmol/min/mg                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Purity</b>            | > 85 %                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Concentration</b>     | 0.1 ug/ul                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Sequences</b>         | Full-length                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Storage</b>           | Store product at –70oC. 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.                                                                                                                                                                                          |
| <b>Pathways</b>          | 3-phosphoinositide biosynthesis; Acute myeloid leukemia; Aldosterone-regulated sodium reabsorption; Alpha6-Beta4 Integrin Signaling Pathway; Amoebiasis; Apoptosis; B Cell Receptor Signaling Pathway; Carbohydrate digestion and absorption; Chemokine signaling pathway; Colorectal cancer; ErbB signaling pathway; Focal Adhesion; G-protein beta:gamma signalling; Glioma; IL-2 Signaling Pathway; Insulin signaling pathway |
| <b>GENE INFORMATION</b>  |                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Gene Name</b>         | PIK3CG phosphoinositide-3-kinase, catalytic, gamma polypeptide [ Homo sapiens ]                                                                                                                                                                                                                                                                                                                                                  |
| <b>Official Symbol</b>   | PIK3CG                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Synonyms</b>          | PIK3CG; phosphoinositide-3-kinase, catalytic, gamma polypeptide; PI3K; PIK3; PI3CG; PI3Kgamma; phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit gamma isoform; p120-PI3K; PI3K-gamma; p110-gamma; OTTHUMP00000212313; OTTHUMP00000212314; OTTHUMP00000212315; PI3-kinase subunit gamma;                                                                                                                          |

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ptdIns-3-kinase subunit gamma; 1-phosphatidylinositol 3-kinase; ptdIns-3-kinase subunit p110-gamma; phosphatidylinositol 3 kinase gamma, p110 gamma; phosphoinositide-3-kinase gamma catalytic subunit; phosphatidylinositol 3-kinase catalytic 110-kD gamma; phosphatidylinositol 3-kinase, catalytic, gamma polypeptide; phosphatidylinositol-4,5-bisphosphate 3-kinase 110 kDa catalytic subunit gamma

**Gene ID** [5294](#)

**mRNA Refseq** [NM\\_002649](#)

**Protein Refseq** [NP\\_002640](#)

**MIM** [601232](#)

**UniProt ID** [P48736](#)

**Chromosome Location** [7q22](#)

**Function** 1-phosphatidylinositol-3-kinase activity; ATP binding; ephrin receptor binding; inositol or phosphatidylinositol kinase activity; nucleotide binding; phosphatidylinositol-4,5-bisphosphate 3-kinase activity; phosphotransferase activity, alcohol group as acceptor

**PDB rendering based on 17eu.**

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