

## Active Recombinant Human PI3 kinase (p110α/p85α) protein, GST-tagged

**Cat. No.** PIK3CA-1894H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                  |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant Human PI3 kinase (p110α/p85α) fused with N-terminal GST-tag(p110α), no tag on p85α, was co-expressed in Insect cells.                                |
| <b>Species</b>          | Human                                                                                                                                                            |
| <b>Source</b>           | Insect Cells                                                                                                                                                     |
| <b>Form</b>             | 40 mM Tris-HCl, pH 8.0, 110 mM NaCl, 2.2 mM KCl, 16 mM glutathione, 20% glycerol, and 3 mM DTT.                                                                  |
| <b>Bio-activity</b>     | 880 pmol/min/μg                                                                                                                                                  |
| <b>Molecular Mass</b>   | 235 kDa (complex); p110α MW=151 kDa, p85α MW=84 kDa.                                                                                                             |
| <b>Unit Definition</b>  | A unit of p110α/p85α kinase activity is defined as the amount of enzyme required to produce 1 pmol of Phosphoinositol-3, 4,5-Trisphosphate/min at 37 centigrade. |
| <b>Applications</b>     | Useful for the study of enzyme kinetics, screening inhibitors, and selectivity profiling.                                                                        |
| <b>Storage</b>          | >6 months at –80 centigrade. Avoid freeze/thaw cycles                                                                                                            |

### GENE INFORMATION

|                  |                                                                                 |
|------------------|---------------------------------------------------------------------------------|
| <b>Gene Name</b> | PIK3CA phosphoinositide-3-kinase, catalytic, alpha polypeptide [ Homo sapiens ] |
|------------------|---------------------------------------------------------------------------------|

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|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Official Symbol</b>     | PIK3CA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Synonyms</b>            | PIK3CA; phosphoinositide-3-kinase, catalytic, alpha polypeptide; phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit alpha isoform; PI3K; PI3K-alpha; PI3-kinase p110 subunit alpha; ptdIns-3-kinase subunit p110-alpha; serine/threonine protein kinase PIK3CA; phosphatidylinositol 3-kinase, catalytic, 110-KD, alpha; phosphatidylinositol 3-kinase, catalytic, alpha polypeptide; phosphatidylinositol-4,5-bisphosphate 3-kinase 110 kDa catalytic subunit alpha; phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit, alpha isoform; p110-alpha; MGC142161; MGC142163; |
| <b>Gene ID</b>             | 5290                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>mRNA Refseq</b>         | NM_006218                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Protein Refseq</b>      | NP_006209                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>MIM</b>                 | 171834                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>UniProt ID</b>          | P42336                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Chromosome Location</b> | 3q26.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Pathway</b>             | 3-phosphoinositide biosynthesis, organism-specific biosystem; 3-phosphoinositide biosynthesis, conserved biosystem; Acute myeloid leukemia, organism-specific biosystem; Acute myeloid leukemia, conserved biosystem; Adaptive Immune System, organism-specific biosystem; Aldosterone-regulated sodium reabsorption, organism-specific biosystem; Aldosterone-regulated sodium reabsorption, conserved biosystem;                                                                                                                                                                                     |

**Function**

1-phosphatidylinositol-3-kinase activity; ATP binding; insulin receptor substrate binding; nucleotide binding; phosphatidylinositol 3-kinase activity; phosphatidylinositol-4,5-bisphosphate 3-kinase activity; phosphotransferase activity, alcohol group as acceptor; protein binding; protein kinase activator activity; protein serine/threonine kinase activity;

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