

## Active Recombinant Human PIK3CA/PIK3R1 protein, His-tagged

**Cat. No.** PIK3CA&PIK3R1-154H    **Lot. No.** (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant full-length human p110 alpha subunit and p85 alpha subunit were co-expressed by baculovirus in Sf9 insect cells using an N-terminal His tag on both proteins.
<b>Species</b>	Human
<b>Source</b>	Insect Cells
<b>Description</b>	The PI3K comprises of a 110 kDa catalytic subunit and an 85 kDa regulatory subunit. A number of isoforms of the 110 kDa catalytic subunit and the 85 kDa regulatory subunit exist in cells. The p110 alpha catalytic subunit (PIK3CA) is frequently mutated or amplified in a variety of cancers including ovarian and colon and this protein is one of the PI3K mutants. PIK3CA gene copy number is increased in over 30% of ovarian cancers and this leads to increased PI3-kinase activity. Furthermore, the activity of p110 alpha is essential for vascular development and inactivation of p110 alpha leads to severe defects in angiogenic sprouting and vascular remodeling.
<b>Form</b>	50mM sodium phosphate, pH 7.0, 300mM NaCl, 150mM imidazole, 0.1mM PMSF, 0.25mM DTT, 25% glycerol.
<b>Bio-activity</b>	4000 nmol/min/mg
<b>Molecular Mass</b>	p110 alpha ~111 kDa and p85 alpha ~86 kDa

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

<b>Purity</b>	>90%
<b>Applications</b>	Kinase Assay
<b>Stability</b>	1 year at -70 centigrade from the date of shipment
<b>Storage</b>	Store product at -70 centigrade. 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>Concentration</b>	0.1 µg/µl

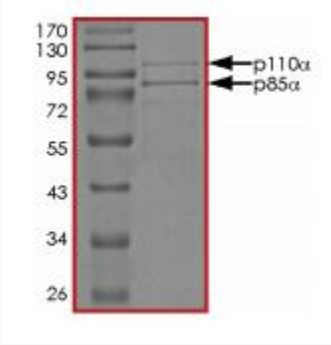
## GENE INFORMATION

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

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<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;
<b>Function</b>	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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