Active Recombinant Human PIK3CA(E545K)/PIK3R1 protein, His-tagged

Cat. No. PIK3CA&PIK3R1-150H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full-length human p110 alpha (E545K) mutant subunit and human p85 alpha wild-type subunit were co-expressed by baculovirus in Sf9 insect cells using an N-terminal His tag on both proteins.
Species	Human
Source	Insect Cells
Description	The PI3K comprises of a 110 kDa catalytic subunit and a 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.
Form	50mM sodium phosphate, pH 7.0, 300mM NaCl, 150mM imidazole, 0.1mM PMSF, 0.25mM DTT, 25% glycerol.
Bio-activity	9200 nmol/min/mg
Molecular Mass	p110 alpha(E545K) ~111 kDa and p85 alpha ~86 kDa

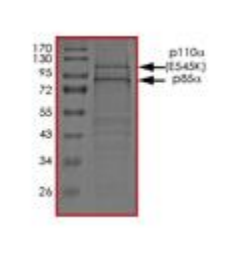
Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

Purity	>70%
Applications	Kinase Assay
Stability	1 year at -70 centigrade from the date of shipment
Storage	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.
Concentration	0.05μg/μl

GENE INFORMATION

Gene Name	PIK3CA phosphoinositide-3-kinase, catalytic, alpha polypeptide [Homo sapiens]
Official Symbol	PIK3CA
Synonyms	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;
Gene ID	5290
mRNA Refseq	NM_006218

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Protein Refseq	NP_006209
MIM	171834
UniProt ID	P42336
Chromosome Location	3q26.3
Pathway	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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