Recombinant Bovine Phosphoinositide-3-Kinase, Catalytic, Alpha Polypeptide, His-tagged

Cat. No. PIK3CA-610B **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant BovinePIK3CA was expessed in Sf9 insect cells with a G-terminal His-tag.
Species	Bovine
Source	Sf9 Cells
Description	The PIK3CA andregulatory subunits are co-expressed in Sf9 insect cells protein is acatalytically inactive mutant of PIK3CA in whichArg916 was mutated to Pro. This recombinant catalytically inactive proteincan be used as a negative control in any kind of PI3Kα kinaseactivity studies. Recombinant full length PIK3CA and regulatory subunits areco-expressed in Sf9 insect cells mutant carries a N terminal GST-Tag and waspurified by affinity chromatography. Human p110alpha differs from the bovineenzyme in only 2 positions, K532R and S535C. Both lie in the PIK domain ofthe enzyme (aa 525-696) and are not expected to interfere with binding of p85(aa 31-108) or Ras (aa 173-292) or with catalytic function (aa 699-1064).Phosphoinositide 3-kinases (PIK3CA) phosphorylate phosphatidylinositols (PIs)at their 3´ OH position generating lipid second messengers and therebyregulatenumerous biologicalprocesses including cell growth, differentiation, survival, proliferation,migration and metabolism. On the basis of structural similarities andsubstrate specificity, the PI3K family can be subdivided into three classestermed I, II, and III.

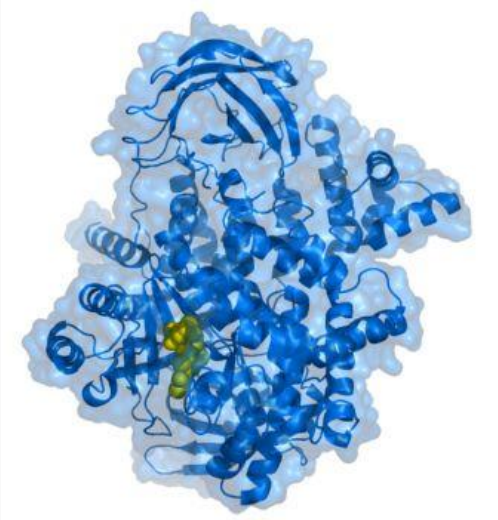
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Form	Liquid. Supplied in10 mM HEPES pH 7.5 + 100 mM NaCl + 2.5 mM MgCl2 + 50% glycerol.
Purity	≥95%by SDS-PAGE.
Storage	Storedat -20°C. Avoid repeated freeze-thaw cycles.
OfficialSymbol	PIK3CA

GENE INFORMATION

Gene Name	PIK3CAphosphoinositide-3-kinase, catalytic, alpha polypeptide [Bos taurus]
Synonyms	PIK3CA;phosphoinositide-3-kinase, catalytic, alpha polypeptide;phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit alphaisoform; PI3K; PI3Kalpha; p110alpha; PI3K-alpha; ptdIns-3-kinase p110;PI3-kinase subunit alpha; PI3-kinase p110 subunit alpha; ptdIns-3-kinasesubunit alpha; ptdIns-3-kinase subunit p110-alpha; serine/threonine proteinkinase PIK3CA; phosphoinositide-3-kinase catalytic alpha polypeptide;phosphatidylinositol-4,5-bisphosphate 3-kinase 110 kDa catalytic subunitalpha; EC 2.7.1.153; EC 2.7.11.1; MGC142161; MGC142163; p110-alpha
Gene ID	282306
mRNA Refseq	NM_174574
Protein Refseq	NP_776999
UniProt ID	P32871
Pathway	Acute myeloidleukemia; Apoptosis; B cell receptor signaling pathway; Chemokine signalingpathway; Colorectal cancer; Endometrial cancer; Fc epsilon RI

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	signalingpathway; Fc gamma R-mediated phagocytosis; Focal adhesion; Inositol phosphatemetabolism; Insulin signaling pathway; Jak-STAT signaling pathway; Leukocytetransendothelial migration; Natural killer cell mediated cytotoxicity;Neurotrophin signaling pathway
Function	1-phosphatidylinositol-3-kinaseactivity; ATP binding; inositol or phosphatidylinositol kinase activity;insulin receptor substrate binding; nucleotide binding;phosphatidylinositol-4,5-bisphosphate 3-kinase activity; phosphotransferaseactivity, alcohol group as acceptor; transferase activity; protein binding;protein kinase activator activity; protein serine/threonine kinase activity
PI3 Kinase 110 alphabound to the inhibitor PIK-93 (yellow).	

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