Recombinant Bovine PIK3R1

Cat. No. PIK3R1-05B **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Bovine Phosphoinositide 3-kinase subunit p85a is expressed in*Leishmania tarentolae*and has a molecular weight of 83.5 kDa.
Species	Bovine
Source	Leishmania Tarentolae
Description	P85a functions as the regulatory subunit of the class IA PI3-kinase isoforms a, b, and d. It contains two SH2 domains that bind to tyrosine-phosphorylated growth factor receptors or substrate adaptor proteins. It also contains a breakpoint cluster region homology domain that shows GAP activity towards the small GTPases Rab4, Rab5, Cdc42, Rac1 and to a lesser extend towards Rab6 and Rab11. It was shown that PI3Ka catalytic subunit mediated phosphorylation of the p85a adapter reduces the lipid kinase activity of the heterodimer and this gives hints for PI3K-dependent signaling events not requiring production of 3'-phosphorylated phosphoinositides. PI3Ka protein kinase activity has been implicated in IRS-1 serine phosphorylation in insulin-treated adipocytes and in STAT3 and IRS-1 phosphorylation upon activation of the type 1 IFN receptor by IFN-a.
Physical Appearance	Sterile filtered liquid formulation.
Purity	Greater than 90.0% as determined by SDS-PAGE.
Formulation	Supplied as a 1 mg/ml solution in 25mM HEPES, pH 8.0, 25mM NaCl, 2.5mM MgCl2 and 50% glycerol.

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Storage	P85a although stable at 14℃for 1 week, should be stored desiccated below -18℃. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

GENE INFORMATION

Gene Name	PIK3R1 phosphoinositide-3-kinase, regulatory subunit 1 (alpha) [Bos taurus]
Synonyms	phosphoinositide-3-kinase, regulatory subunit 1 (alpha); phosphoinositide-3-kinase, regulatory subunit 1 (p85 alpha); phosphoinositide-3-kinase, regulatory subunit, polypeptide 1 (p85 alpha); PIK3R1
Gene ID	282307
mRNA Refseq	NM_174575
Protein Refseq	NP_777000
UniProt ID	P23727
Chromosome Location	20
Pathway	Acute myeloid leukemia; Apoptosis; B cell receptor signaling pathway; Chemokine signaling pathway; Chronic myeloid leukemia; Colorectal cancer; Endometrial cancer; ErbB signaling pathway; Fc epsilon RI signaling pathway; Fc gamma R-mediated phagocytosis; Focal adhesion; Glioma; Insulin signaling pathway; Jak-STAT signaling pathway; Leukocyte transendothelial migration; Melanoma; Natural killer cell mediated cytotoxicity; Neurotrophin signaling pathway; Non-small cell lung cancer; Pancreatic cancer; Pathways in cancer; Phosphatidylinositol signaling system; Prostate cancer; Regulation of actin cytoskeleton; Renal cell carcinoma; Small cell

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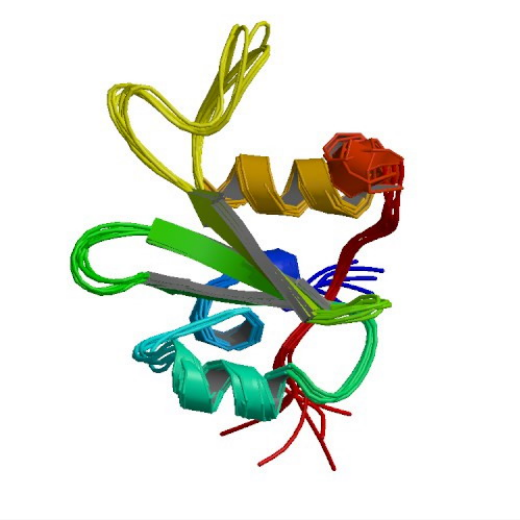
	lung cancer; T cell receptor signaling pathway; Toll-like receptor signaling pathway; Type II diabetes mellitus; VEGF signaling pathway; mTOR signaling pathway
Function	ErbB-3 class receptor binding; insulin receptor binding; insulin receptor substrate binding; insulin-like growth factor receptor binding; phosphoinositide 3-kinase regulator activity
PDB rendering based on 1bfi.	

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