Recombinant Bovine PIK3R1

Cat. No. PIK3R1-06B **Lot. No.** (See product label)

SPECIFICATION

Product Overview	The PI3Ka catalytic and regulatory subunits are coexpressed in*Sf9 insect cells*. Recombinant Bovine Phosphoinositide 3-kinase alpha is a glycosilated protein having a molecular weight as follows: p85a chain 83.5 kDa, p110 chain 124.3 kDa.
Species	Bovine
Source	Sf9 Cells
Description	PI3Ka plays a specific role in apoptosis in human colon cancer cells. Injection of neutralizing antibodies specific to PI3Ka into adenocarcinoma cells induced apoptosis, a response that was reverted by treating cells with caspase inhibitor. It was also shown that PI3Ka 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 is a key regulator of the initiation of keratinocyte differentiation. A decrease in PI3Ka activity results in a loss of keratinocyte adhesion to the extracellular membrane and the initiation of early phase differentiation.
Physical Appearance	Sterile filtered liquid formualtion.
Purity	Greater than 90.0% as determined by SDS-PAGE.
Formulation	0.1 mg/ml solution in 25mM HEPES, pH 8.0, 25mM NaCl, 2.5mM MgCl2 and 50% glycerol.

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

Biological Activity	~ 1 nmol/mg/min using phosphatidylinositol as the substrate.
Storage	PI3Ka although stable at 14ºC for 1 week, should be stored desiccated below -18ºC. 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;

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

	Pancreatic cancer; Pathways in cancer; Phosphatidylinositol signaling system; Prostate cancer; Regulation of actin cytoskeleton; Renal cell carcinoma; Small cell 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

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