Recombinant Human PDE3B

Cat. No. PDE3B-29932TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant fragment corresponding to amino acids 592-1112 of Human PDE3B with N terminal proprietary tag expressed in a Baculovirus infected Sf9 cell expression system, 86 kDa.
Species	Human
ProteinLength	592-1112 a.a.
Description	Cyclic nucleotides are hydrolyzed and compartmentalized by a family of enzymes called phosphodieterases. In mammals at least 11 different families of PDEs can be discriminated (PDE1-PDE11) based on their kinetic properties and inhibition to various pharmacological agents. The members of the PDE3 families are known as cGMP inhibited PDEs. The PDE3 enzymes bind both cGMP and cAMP with different affinities (cAMP 4-10-fold than cGMP). The phosphodiesterase type-3 (PDE3) family is comprised of 2 genes (PDE3A and PDE3B). PDE3A is a 145 kDa protein and is expressed in various tissues (myocardium, vascular and non vascular smooth muscles, megakaryocytes and a subset of neurons (Snyder 1999; Maecci et al., 1992). PDE3B is 1112 amino acids long and has two splice variants which are expressed in adipocyte tissue, hepatocyte, kidney, spermatocytes and embryonic neuroepithelium (Reinhatdt et. al., 1995). Both PDE3A and PDE3B are therapeutic targets for the treatment of obesity as inhibition of PDE3 increase the lipolytic activity and alter the insulin secretion and its response. PDE3 inhibitors also promote thermogenic and cardiotonic effects in animals.

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	Specific Activity: 4072 pmol/min/μg.
Form	Liquid
Storage buffer	Preservative: NoneConstituents: 50% Glycerol, 0.05% Tween 20, 3mM DTT, 25mM Tris HCl, 100mM Sodium chloride, pH 8.0
Storage	Aliquot and store at -80°C. Avoid repeated freeze / thaw cycles.

GENE INFORMATION

Gene Name	PDE3B phosphodiesterase 3B, cGMP-inhibited [Homo sapiens]
Official Symbol	PDE3B
Synonyms	PDE3B; phosphodiesterase 3B, cGMP-inhibited; cGMP-inhibited 3,5-cyclic phosphodiesterase B; HcGIP1;
Gene ID	5140
mRNA Refseq	NM_000922
Protein Refseq	NP_000913
MIM	602047
Uniprot ID	Q13370
Chromosome Location	11p15.2
Pathway	Class IB PI3K non-lipid kinase events, organism-specific biosystem; G alpha (s)

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	signalling events, organism-specific biosystem; GPCR downstream signaling, organism-specific biosystem; Hemostasis, organism-specific biosystem; IRS-mediated signalling, organism-specific biosystem;
Function	3,5-cyclic-AMP phosphodiesterase activity; 3,5-cyclic-nucleotide phosphodiesterase activity; cAMP binding; cGMP-inhibited cyclic-nucleotide phosphodiesterase activity; drug binding;

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