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Datasheet for ABIN7317546

**PDE4B Protein (GST tag,His tag)**

## Overview

Quantity:	50 µg
Target:	PDE4B
Origin:	Human
Source:	Baculovirus infected Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This PDE4B protein is labelled with GST tag,His tag.

## Product Details

Purpose:	Recombinant Human PDE4B/DPDE4 Protein (His & GST Tag)
Sequence:	Met 1-Thr 564
Characteristics:	A DNA sequence encoding the human PDE4B isoform 2 (NP_001032416.1) (Met 1-Thr 564) was fused with the N-terminal polyhistidine-tagged GST tag at the N-terminus.
Purity:	> 80 % as determined by reducing SDS-PAGE.
Endotoxin Level:	< 1.0 EU per µg as determined by the LAL method.

## Target Details

Target:	PDE4B
Alternative Name:	PDE4B/DPDE4 ( <a href="#">PDE4B Products</a> )
Background:	Background: cAMP-specific 3',5'-cyclic phosphodiesterase 4B, also known as PDE4B and DPDE4, is a member of the cyclic nucleotide phosphodiesterase family. PDE4 subfamily. Cyclic nucleotide phosphodiesterases (PDEs) comprise a large family of enzymes that catalyze the

## Target Details

hydrolysis of cAMP or cGMP and are implicated in various diseases. The crystal structures reveal a common scheme of inhibitor binding to the PDEs: (i) a hydrophobic clamp formed by highly conserved hydrophobic residues that sandwich the inhibitor in the active site; (ii) hydrogen bonding to an invariant glutamine that controls the orientation of inhibitor binding. A scaffold can be readily identified for any given inhibitor based on the formation of these two types of conserved interactions. These structural insights will enable the design of isoform-selective inhibitors with improved binding affinity and should facilitate the discovery of more potent and selective PDE inhibitors for the treatment of a variety of diseases. PDE4B / DPDE4 hydrolyzes the second messenger cAMP, which is a key regulator of many important physiological processes. It is expressed in brain, heart, lung and skeletal muscle. PDE4B / DPDE4 may be involved in mediating central nervous system effects of therapeutic agents ranging from antidepressants to antiasthmatic and anti-inflammatory agents

Synonym: DPDE4;PDEIVB

Molecular Weight: 92.2 kDa

NCBI Accession: [NP\\_001032416](#)

Pathways: [Cellular Response to Molecule of Bacterial Origin](#), [cAMP Metabolic Process](#), [Myometrial Relaxation and Contraction](#)

## Application Details

Restrictions: For Research Use only

## Handling

Format: Lyophilized

Reconstitution: Please refer to the printed manual for detailed information.

Buffer: Lyophilized from sterile 50 mM Tris, 100 mM NaCl, 0.5 mM GSH, 10 % glycerol, 0.5 mM PMSF, pH 8.0

Storage: 4 °C, -20 °C, -80 °C

Storage Comment: Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.