

Recombinant Human PDE4B / DPDE4 Protein (His & GST tag)

Cat.NO.: TP06508

3th Edition

Synonyms:DPDE4;PDEIVB

Description: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 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

Form:PBS

Molecular Weight:92.2 kDa

Sequences:Met 1-Thr 564

Purity:> 95% by HPLC

Concentration:

Endotoxin Level:<1.0 EU per 1 ug of protein (determined by LAL method)

Storage:Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.