

Recombinant Human PDE1A, His-tagged, Active

Cat. No. PDE1A-471H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full-length human PDE1A was expressed by baculovirus in Sf9 insect cells using an N-terminal His tag. MW=64kDa.
Species	Human
Source	Sf9 Cells
Description	PDE1A is a member of the cyclic nucleotide phosphodiesterase family that is stimulated by Ca ²⁺ -calmodulin. PDE1A is a cGMP-specific phosphodiesterase and hydrolyzes cGMP to 5'-GMP. Calmodulin is tightly bound to PDE1A in human spermatozoa and this results in permanent activation of PDE1A. Inhibition of PDE1A function significantly attenuates vascular smooth muscle cell growth by decreasing proliferation via G1 arrest and induces apoptosis. In vascular smooth muscle cell, PDE1A is important in regulating growth and survival of these cells and thus can contribute to the neointima formation in atherosclerosis and restenosis.
Sequence	Full length.
Applications	PDE Assay.
Storage And Stability	Store product at –70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.
22q13.33	2q32.1

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GENE INFORMATION

Gene Name	PDE1A phosphodiesterase 1A, calmodulin-dependent [Homo sapiens]
Synonyms	PDE1A; phosphodiesterase 1A, calmodulin-dependent; 3",5" cyclic nucleotide phosphodiesterase; OTTHUMP00000163419; OTTHUMP00000205290; calcium/calmodulin-stimulated cyclic nucleotide phosphodiesterase; calmodulin-dependent phosphodiesterase; phosphodiesterase 1A; phosphodiesterase-1A; HCAM1; HSPDE1A; MGC26303; EC 3.1.4.17
Gene ID	5136
mRNA Refseq	NM_001003683
Protein Refseq	NP_001003683
MIM	171890
UniProt ID	P54750
Pathway	Calcium signaling pathway; Progesterone-mediated oocyte maturation; Purine metabolism; Taste transduction; Opioid Signalling; Signaling by GPCR; Signalling by NGF
Function	calmodulin binding; calmodulin-dependent cyclic-nucleotide; phosphodiesterase activity; hydrolase activity

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