

Recombinant Human PDE4A, GST-tagged, Active

Cat. No. PDE4A-475H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinanthuman PDE4A (332-end) was expressed by <i>baculovirus</i> in <i>Sf9 insect cell</i> using an N-terminal GST tag. MW=110kDa.
Species	Human
Source	Sf9 Cells
ProteinLength	332-end a.a.
Description	PDE4A is a member of the phosphodiesterase family of proteins that play a critical role in regulating intracellular levels of cAMP. In vitro phosphorylation of PDE4A by the PKA-catalytic subunit increases the enzyme's sensitivity to Mg ²⁺ , leading to a 4-fold increase in cAMP hydrolysis without affecting the Km. PDE4 is widely expressed in brain tumors and promotes their growth and treatment with PDE4A inhibitor Rolipram overcomes tumor resistance and mediates tumor regression. PDE4A expression is altered in patients with bipolar disorder and is a new therapeutic avenue for treatment of this disorder.
Sequence	332-end.
Applications	PDE Assay.
Storage And Stability	Store product at -70oC. 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.

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22q13.33

19p13.2

GENE INFORMATION

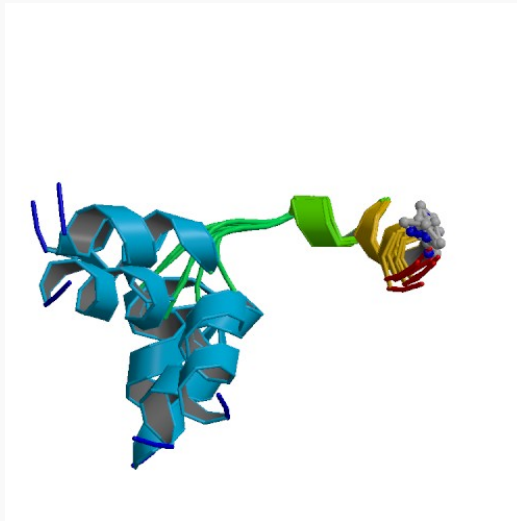
Gene Name	PDE4A phosphodiesterase 4A, cAMP-specific (phosphodiesterase E2 dunce homolog, <i>Drosophila</i>) [<i>Homo sapiens</i>]
Synonyms	PDE4A; phosphodiesterase 4A, calmodulin-dependent; cAMP-specific phosphodiesterase; phosphodiesterase 4A; phosphodiesterase 4A, cAMP-specific (dunce; phosphodiesterase E2 dunce homolog, <i>Drosophila</i>); phosphodiesterase isozyme 4; PDE4; DPDE2; PDE46; EC 3.1.4.17
Gene ID	5141
mRNA Refseq	NM_001111307
Protein Refseq	NP_001104777
MIM	600126
UniProt ID	P27815
Pathway	Progesterone-mediated oocyte maturation; Purine metabolism; Signaling by GPCR; Insulin signaling pathway
Function	3",5"-cyclic-AMP phosphodiesterase activity; cGMP-inhibited cyclic-nucleotide phosphodiesterase activity; hydrolase activity

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