

Recombinant Human PDE4A

Cat. No. PDE4A-29933TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full length Human PDE4A, isoform 4 with N terminal proprietary tag. Predicted MW 97.24 kDa.
Species	Human
Source	Wheat Germ
ProteinLength	647 amino acids
Description	The protein encoded by this gene belongs to the cyclic nucleotide phosphodiesterase (PDE) family, and PDE4 subfamily. This PDE hydrolyzes the second messenger, cAMP, which is a regulator and mediator of a number of cellular responses to extracellular signals. Thus, by regulating the cellular concentration of cAMP, this protein plays a key role in many important physiological processes. Alternatively spliced transcript variants encoding different isoforms have been described for this gene.
Molecular Weight	97.240kDa inclusive of tags
Tissue specificity	Isoform 1 is widely expressed. Isoform 2 is abundant in liver, stomach, testis, thyroid and adrenal glands. It is also found in placenta, kidney, pancreas, ovary, uterus, skin, monocytes, mast cells, macrophages, as well as in bronchial smooth muscle. Iso
Form	Liquid

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Purity	Proprietary Purification
Storage	Shipped on dry ice. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.
Sequences of amino acids	MPLVDFFCETCSKPWLVGWWDQFKRMLNRELTHLSEMSRS GNQVSEYISTTFLDK QNEVEIPSPTMKEREKQQAPRPRPS QPPPPVPHLQPM SQITGLKKLMHSNSLNN SNIPRFGVKT DQEELLAQELENLNKWGLNIFCVSDYAGGRSLTCIMYMIF QERDLLK KFRIPVDTMVTYMLTLEDHYHADVAYHNSLHAA DVLQSTHVLLATPALDAVFTDLEIL AALFAAAIHDVDHPG VSNQFLINTNSELALMYNDESVLENHHLAVGFKLLQEDNC DI FQNL SKRQRQSLRKMVIDMVLATDMSK HMTLLADLKT M VETKKVTSSGVLLLDNYS DRIQVLRNMVHCADLSNPTKPL ELYRQWTD RIMAEFFQQGDRERERGMEISPMCD KHTASVE KSQVGFIDYIVHPLWETWADLVHPDAQEILD TLEDNRDWY YSAIRQSPS PPPEEESRGP GHPPLPDKFQFELTLEEEEEEE EISMAQIPCTAQEALTAQGLSGVEEA LDATIAWEASPAQE SLEVMAQEASLEAELEAVYLTQQAQSTGSAPVAPDEFSSR EE FVVAVSHSSPSALALQSPLLPAWRTLSVSEHAPGLPGL PSTAAEVEAQREHQA AKR ACSACAGTFGEDTSALPAPGGG GSGGDPT
Sequence Similarities	Belongs to the cyclic nucleotide phosphodiesterase family. PDE4 subfamily.
GENE INFORMATION	
Gene Name	PDE4A phosphodiesterase 4A, cAMP-specific [Homo sapiens]
Official Symbol	PDE4A
Synonyms	PDE4A; phosphodiesterase 4A, cAMP-specific; DPDE2, phosphodiesterase 4A, cAMP specific (dunce (Drosophila) homolog phosphodiesterase E2); cAMP-specific 3,5-cyclic phosphodiesterase 4A; phosphodiesterase E2 dunce homolog (Drosophila);

Gene ID	5141
mRNA Refseq	NM_001111307
Protein Refseq	NP_001104777
MIM	600126
Uniprot ID	P27815
Chromosome Location	19p13.2
Pathway	DARPP-32 events, organism-specific biosystem; G Protein Signaling Pathways, organism-specific biosystem; G alpha (s) signalling events, organism-specific biosystem; GPCR downstream signaling, organism-specific biosystem; Opioid Signalling, organism-specific biosystem;
Function	3,5-cyclic-AMP phosphodiesterase activity; hydrolase activity; metal ion binding; phosphoric diester hydrolase activity; protein binding;