

## Active Recombinant Human PDE7A, GST-tagged

Cat. No. PDE7A-1531H Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant human PDE7A (104-end) was expressed by baculovirus in Sf9 insect cells using an N-terminal GST tag.
<b>Species</b>	Human
<b>Source</b>	Sf9 Cells
<b>ProteinLength</b>	104 aa-end
<b>Description</b>	PDE7A is a member of the phosphodiesterase family of proteins that play a critical role in regulating intracellular levels of cAMP and cGMP. PDE7A is a high-affinity cAMP-specific PDE and is expressed in T cell lines, peripheral blood T lymphocytes, epithelial cell lines, airway and vascular smooth muscle cells, lung fibroblasts, and eosinophils. PDE7 plays a critical role in the regulation of human T cell function and selective PDE7 inhibitors are being examined to treat immunological and inflammatory disorders. PDE7A plays an important role in the regulation of osteoblastic differentiation. PDE7A depletion by RNAi upregulates expression of several osteogenic genes and increases mineralization.
<b>Form</b>	Recombinant protein stored in 50mM Tris-HCl, pH 7.5, 150mM NaCl, 0.25mM DTT, 0.1mM PMSF, 25% glycerol.
<b>Bio-activity</b>	166 nmol/min/mg
<b>Molecular Mass</b>	~64 kDa

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<b>Purity</b>	>85%
<b>Applications</b>	PDE Assay
<b>Storage</b>	Store at –70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. Avoid freeze/thaw cycles.
<b>Concentration</b>	0.1 µg/µl
<b>GENE INFORMATION</b>	
<b>Gene Name</b>	PDE7A phosphodiesterase 7A [ Homo sapiens ]
<b>Official Symbol</b>	PDE7A
<b>Synonyms</b>	PDE7A; phosphodiesterase 7A; high affinity cAMP-specific 3,5-cyclic phosphodiesterase 7A; HCP1; TM22; phosphodiesterase isozyme 7; PDE7;
<b>Gene ID</b>	5150
<b>mRNA Refseq</b>	NM_001242318
<b>Protein Refseq</b>	NP_001229247
<b>MIM</b>	171885
<b>UniProt ID</b>	Q13946
<b>Chromosome Location</b>	8q13
<b>Pathway</b>	G Protein Signaling Pathways, organism-specific biosystem; G alpha (s) signalling

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events, organism-specific biosystem; GPCR downstream signaling, organism-specific biosystem; Morphine addiction, organism-specific biosystem; Morphine addiction, conserved biosystem; Purine metabolism, organism-specific biosystem; Purine metabolism, conserved biosystem;

**Function**

3,5-cyclic-AMP phosphodiesterase activity; 3,5-cyclic-AMP phosphodiesterase activity; hydrolase activity; metal ion binding;

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