

Recombinant Bovine Phosphodiesterase 5A, cGMP-specific

Cat. No. PDE5A-640B **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant bovine PDE5A (phosphodiesterase 5A) expressed in <i>Sf9 cells</i> , 95kDa/subunit; homodimer.
Species	Bovine
Source	Insect Cells
Description	PDE5A is a member of the cyclic nucleotide phosphodiesterase family. PDE5A is a cGMP-specific phosphodiesterase and hydrolyzes cGMP to 5"-GMP. It is involved in the regulation of intracellular concentrations of cyclic nucleotides and is important for smooth muscle relaxation in the cardiovascular system. PDE5A regulates nitric oxide (NO)-induced relaxation and cGMP breakdown in smooth muscle cells in vas deferens. PDE5A expression predisposes mice to adverse left ventricular remodeling after myocardial infarction. Furthermore, increased myocardial PDE5A expression in patients with advanced cardiomyopathy can contribute to the development of heart failure.
Source/Host	Sf9 cells.
Application	Study of enzyme kinetics and regulation, dephosphorylation of target substrates, and inhibitor screening.
Concentration	0.4mg/ml.
Purity Detail	Partially purified by ammonium sulfate precipitation, hydroxyapatite and size-

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	exclusion chromatography.
Specific Activity	4μmol/min/mg.
Formulation	Liquid. In 25mM TEA, pH7.5, containing 1mM EGTA, 5mM MgCl ₂ and 30% glycerol.
Short Term Storage	-20°C.
Long Term Storage	-80°C.
Use/Stability	Do not store diluted preparations.
Handling	After opening, prepare aliquots and store at -80°C. Avoid freeze/thaw cycles.

GENE INFORMATION

Gene Name	PDE5A phosphodiesterase 5A, cGMP-specific [<i>Bos taurus</i>]
Synonyms	phosphodiesterase 5A, cGMP-specific; PDE5A; cGMP-specific 3",5"-cyclic phosphodiesterase; CGB-PDE; cGMP-binding cGMP-specific phosphodiesterase
Gene ID	281972
mRNA Refseq	NM_174417
Protein Refseq	NP_776842
UniProt ID	Q28156
Chromosome Location	6

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Pathway	Purine metabolism
Function	3",5"-cyclic-GMP phosphodiesterase activity; cyclic-nucleotide phosphodiesterase activity; cGMP binding; hydrolase activity; metal ion binding; nucleotide binding
PDB rendering based on 3BJC.	