

Recombinant Human PDE6A

Cat. No. PDE6A-30821TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant fragment of Human PDE6 alpha with an N terminal proprietary tag, expressed by Baculovirus in Sf9 insect cells system; predicted mwt: 120kDa.
Species	Human
Source	Insect Cells
ProteinLength	827 amino acids
Description	This gene encodes the cyclic-GMP (cGMP)-specific phosphodiesterase 6A alpha subunit, expressed in cells of the retinal rod outer segment. The phosphodiesterase 6 holoenzyme is a heterotrimer composed of an alpha, beta, and two gamma subunits. cGMP is an important regulator of rod cell membrane current, and its dynamic concentration is established by phosphodiesterase 6A cGMP hydrolysis and guanylate cyclase cGMP synthesis. The protein is a subunit of a key phototransduction enzyme and participates in processes of transmission and amplification of the visual signal. Mutations in this gene have been identified as one cause of autosomal recessive retinitis pigmentosa.
Molecular Weight	120.000kDa inclusive of tags
Biological activity	the specific activity of PDE6 alpha was determined to be 38 nmol/min/mg
Form	Liquid

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Purity	by SDS-PAGE
Storage buffer	Preservative: None Constituents: 25% Glycerol, 50mM Tris HCl, 150mM Sodium chloride, 10mM Glutathione, 0.25mM DTT, 0.1mM EDTA, 0.1mM PMSF, pH 7.5
Storage	Shipped on dry ice. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.

GENE INFORMATION

Gene Name	PDE6A phosphodiesterase 6A, cGMP-specific, rod, alpha [Homo sapiens]
Official Symbol	PDE6A
Synonyms	PDE6A; phosphodiesterase 6A, cGMP-specific, rod, alpha; PDEA; rod cGMP-specific 3,5-cyclic phosphodiesterase subunit alpha;
Gene ID	5145
mRNA Refseq	NM_000440
Protein Refseq	NP_000431
MIM	180071
Uniprot ID	P16499
Chromosome Location	5q31.2-q34
Pathway	Hemostasis, organism-specific biosystem; Nitric oxide stimulates guanylate cyclase, organism-specific biosystem; Phototransduction, organism-specific biosystem;

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Phototransduction, conserved biosystem; Platelet homeostasis, organism-specific biosystem;

Function

3,5-cyclic-GMP phosphodiesterase activity; hydrolase activity; metal ion binding; phosphoric diester hydrolase activity;

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