

Pyrroline-5-carboxylate Reductase 2

Cat. No. CBCRY25 **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Source	E.coli
Background	Pyrroline-5-carboxylate reductase (P5CR) is a universal housekeeping enzyme that catalyzes the reduction of Delta(1)-pyrroline-5-carboxylate (P5C) to proline using NAD(P)H as the cofactor. The enzymatic cycle between P5C and proline is very important for the regulation of amino acid metabolism, intracellular redox potential, and apoptosis.
Protein Classification	Oxidoreductase
Structure Weight	149791.08 Da
Polymer	1
Molecule	Pyrroline-5-carboxylate reductase 2
Chain Length	277 amino acids
PDB ID	2GR9
MMDB ID	41570
Method	X-Ray Diffraction

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Resolution	3.1Å
Ligand Chemical Component	Magnesium ion; Sulfate ion
Reference	Meng, Z., Lou, Z., Liu, Z., Li, M., Zhao, X., Bartlam, M., Rao, Z. (2006) Crystal structure of human pyrroline-5-carboxylate reductase J.Mol.Biol. 359: 1364-1377
GENE INFORMATION	
Gene Name	PYCR2
Synonyms	P5CR2; OTTHUMP00000035614; pyrroline 5-carboxylate reductase isoform; EC 1.5.1.2; P5C reductase 2; pyrroline-5-carboxylate reductase family, member 2; FLJ54750; RP4-559A3.4
UniProt ID	Q96C36
Gene ID	29920
Chromosome Location	1q42.12
Function	catalytic activity; binding; pyrroline-5-carboxylate reductase activity; Oxidoreductase activity