

Pyrroline-5-carboxylate Reductase 1

Cat. No. CBCRY27 **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	168155.50 Da
Polymer	1
Molecule	Pyrroline-5-carboxylate reductase 1
Chain Length	321 amino acids
PDB ID	2GER
MMDB ID	41542
Method	X-Ray Diffraction

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Resolution	3.1Å
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	PYCR1
Synonyms	P5C; P5CR; PIG45; PP222; PYCR; P5C reductase; proliferation-inducing protein 45; pyrroline-5-carboxylate reductase 1; EC 1.5.1.2; P5C reductase 1; P5CR1
UniProt ID	P32322
Gene ID	5831
Chromosome Location	17q25.3
Function	binding; oxidoreductase activity; pyrroline-5-carboxylate resuctase activity