Active Recombinant Human PYCR1 protein, His-tagged, Bioactivity Validated.

Cat. No. PYCR1-31271TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Full Length Human PYCR1(1-319aa) fused with His tag at N-terminal was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	1-319 a.a.
Description	PYCR1 is a universal housekeeping enzyme that catalyzes the NAD(P)H-dependent conversion of pyrroline-5-carboxylate to proline. This enzyme may also play a physiologic role in the generation of NADP(+) in some cell types. It forms a homopolymer and localizes to the mitochondrion. Defects in PYCR1 are the cause of cutis laxa autosomal recessive type 2B (ARCL2B).
Form	Liquid. In 20 mM Tris-HCl Buffer (pH 8.5) containing 10% Glycerol
Bio-activity	Specific activity is > 0.03 unit/mg. One unit will oxidize 1.0 umole of L-proline to 1-pyrroline-5-carboxylate per minute in the presence of beta NAD at pH 10.0 at 25C.
Molecular Mass	35.5 kDa(339aa), confirmed by MALDI-TOF
Purity	> 90% by SDS - PAGE

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Storage	Can be stored at +4 centigrade short term (1-2 weeks). For long term storage, aliquot and store at -20 centigrade or -70 centigrade. Avoid repeated freezing and thawing cycles.
Concentration	0.5 mg/ml (determined by Bradford assay)

GENE INFORMATION

Gene Name	PYCR1 pyrroline-5-carboxylate reductase 1 [Homo sapiens]
Official Symbol	PYCR1
Synonyms	PYCR1; pyrroline-5-carboxylate reductase 1; pyrroline-5-carboxylate reductase 1, mitochondrial; P5C; P5CR 1; P5C reductase 1; proliferation-inducing protein 45; mitochondrial pyrroline-5-carboxylate reductase 1; P5CR; PRO3; PYCR; PIG45; PP222; ARCL2B; ARCL3B;
Gene ID	5831
mRNA Refseq	NM_006907
Protein Refseq	NP_008838
MIM	179035
UniProt ID	P32322
Chromosome Location	17
Pathway	Amino acid synthesis and interconversion (transamination), organism-specific

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	biosystem; Arginine and proline metabolism, organism-specific biosystem; Arginine and proline metabolism, conserved biosystem; Metabolic pathways, organism-specific biosystem; Metabolism, organism-specific biosystem; Metabolism of amino acids and derivatives, organism-specific biosystem; Proline biosynthesis, glutamate =>
Function	identical protein binding; nucleotide binding; oxidoreductase activity; oxidoreductase activity, acting on the CH-OH group of donors, NAD or NADP as acceptor; pyrroline-5-carboxylate reductase activity; pyrroline-5-carboxylate reductase activity;

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