

Recombinant Human PYCRL, His-tagged

Cat. No. PYCRL-7124H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human PYCRL protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.
Species	Human
Source	E.coli
ProteinLength	1-274aa
Description	PYCRL belongs to the pyrroline-5-carboxylate reductase family and functions as a homodecamer. It may play a critical role in proline bio-synthesis. Proline functions as a non-enzymatic antioxidant to minimize damage caused by reactive oxygen species (ROS) in microorganisms, animals and plants. In the last step of proline biosynthesis, PYCRL catalyzes the reduction of aldehyde dehydrogenase 4A1 (ALDH4A1) to proline using NAD(P)H as the cofactor.
Form	Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 0.2M NaCl, 50% glycerol, 2mM DTT
Molecular Mass	31 kDa (297aa)
AA Sequence	MGSSHHHHHH SGLVPRGSH MGSMAAAEPS PRRVGFVGAG RMAGAIQGL IRAGKVEAQH ILASPTDRN LCHFQALGCR TTHSNQEVLQSCLLVIFATK PHVLPVLAEL VAPVVTTEHI LVSVAAGVSL STLEELLPPN TRVLRVLPNL PCVVQEGAIV MARGRHVGSS ETNLLQHLLE ACGRCEEVPE AYVDIHTGLS

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GSGVAFVCAF SEALAEGAVK MGMPSSLAHR IAAQTLLGTA KMLLHEGQHP
AQLRSDVCTP GGTTIYGLHALEQGGGLRAAT MSAVEAATCR AKELSRK

Purity >90% by SDS - PAGE

Applications SDS-PAGE

Storage Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles

Concentration 0.25 mg/ml

GENE INFORMATION

Gene Name PYCRL pyrroline-5-carboxylate reductase-like [Homo sapiens]

Official Symbol PYCRL

Synonyms PYCRL; pyrroline-5-carboxylate reductase-like; pyrroline-5-carboxylate reductase 3; FLJ13852; P5CR 3; P5C reductase 3; pyrroline-5-carboxylate reductase-like protein;

Gene ID [65263](#)

mRNA Refseq [NM_023078](#)

Protein Refseq [NP_075566](#)

UniProt ID [Q53H96](#)

Chromosome Location 8q24.3

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Pathway	Arginine and proline metabolism, organism-specific biosystem; Arginine and proline metabolism, conserved biosystem; Metabolic pathways, organism-specific biosystem; Proline biosynthesis, glutamate => proline, organism-specific biosystem; Proline biosynthesis, glutamate => proline, conserved biosystem;
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;

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