

Product information



PYCR1, 1-319aa

Human, His-tagged, Recombinant, *E.coli*

Cat. No. IBATGP0811

Full name: Pyrroline-5-carboxylate reductase 1

NCBI Accession No.: NP_008838

Synonyms: ARCL2B, P5C, P5CR, PIG45, PP222, PRO3

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). Recombinant human PYCR1 protein, fused to His-tag at N-terminus, was expressed in *E.coli* and purified by using conventional chromatography.

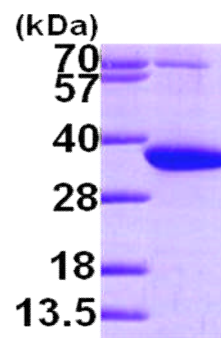
Form: Liquid. In 20 mM Tris-HCl Buffer (pH 8.5) containing 10% Glycerol

Molecular Weight: 35.5 kDa(339aa) confirmed by MALDI-TOF

Purity: > 90% by SDS - PAGE

Concentration: 0.5 mg/ml (determined by Bradford assay)

Biological 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.



15% SDS-PAGE (3ug)

Sequences of amino acids:

MGSSHHHHHH SSGLVPRGSH MSVGF IGAGQ LAFALAKGFT AAGVLAHKI MASSPMDLA TVSALRKMGV KLTPHNKETV QHSDVLFLAV
KPHI IPFILD EIGADIEDRH IVVSCAAGVT ISSIEKLSA FRPAPRVIRC MTNTPVVVRE GATVYATGTH AQVEDGRLME QLLSSVGFCT
EVEEDLIDAV TGLSGSGPAY AFTALDALAD GGVKMGLPRR LAVRLGAQAL LGAAKMLLHS EQHPGQLKDN VSSPGGATIH ALHVLESGGF
RSLLI NAVEA SCIRTRELQS MADQEQVSPA AIKKTILDKV KLDSPAGTAL SPSGHTKLLP RSLAPAGKD

Biological Assay:

1. Prepare an assay buffer with the following concentrations:
200 mM Tris-HCl (pH10.0) and 10 mM NAD, 20mM L-proline, and load 150 ul into each well.
2. Add 50 ul of 1.25 ug and 2.5 ug recombinant PYCR1 protein to each well.

For research use only. This product is not intended or approved for human, diagnostics or veterinary use.



Manufactured for:

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3. Record the increase in A340nm for 5 minutes at 25C.

General references:

Kornak U., *et al.* (2009) *Nat Genet.* 41(9):1016-21.

Rao Z., *et al* (2006) *J Mol Biol.* 359(5):1364-77.

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.

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