

Recombinant human PYCRL/PYCR3 protein

Catalog Number: ATGP1906

PRODUCT INFORMATION

Expression system

E.coli

Domain

1-274aa

UniProt No.

Q53H96

NCBI Accession No.

AAH07993.1

Alternative Names

Pyrroline-5-carboxylate reductase 3, P5C reductase 3, P5CR 3

PRODUCT SPECIFICATION

Molecular Weight

31 kDa (297aa) confirmed by MALDI-TOF

Concentration

0.25mg/ml (determined by Bradford assay)

Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 0.2M NaCl, 50% glycerol, 2mM DTT

Purity

> 90% by SDS-PAGE

Tag

His-Tag

Application

SDS-PAGE

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

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

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Amino acid Sequence

<MGSSHHHHHH SSGLVPRGSH MGS>MAAAEPS PRRVGFVGAG RMAGAIAQGL IRAGKVEAQH ILASAPTDRN
LCHFQALGCR TTHTSNQEV LQ SCLLVIFATK PHVLPVLA E VAPVVTTEHI LVSVAAGVSL STLEELLPPN TRVLRVLPNL
PCVVQEGAI V MARGRHVGSS ETNLLQH LLE ACGRCEEVPE AYVDIHTGLS GSGVAFVCAF SEALAEGAVK MGMPSLAHR
IAAQTL LGTA KMLLHEGQHP AQLRSDVCTP GGTTIYGLHA LEQGGLRAAT MSAVEAATCR AKELSRK

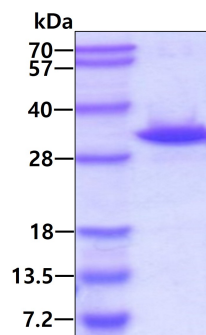
General References

Nocek B., et al. (2005) J Mol Biol. 354:91-106.

Krishnan N., et al. (2008) Free Radic Biol Med. 44: 671-681.

DATA

SDS-PAGE



3 μ g by SDS-PAGE under reducing condition and visualized by coomassie blue stain.