

PYCRL, 1-274aa, Human, His tag, E.coli

Cat.NO.: TP03609

3th Edition

Synonyms: Pyrroline-5-carboxylate reductase 3, P5C reductase 3, P5CR 3, pyrroline-5-carboxylate reductase 3

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.

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

Molecular Weight: 31 kDa (297aa), confirmed by MALDI-TOF

Sequences:

MGSSHHHHHSSGLVPRGSHMGSMAAAEPSPRRVGFVAGRMAGAIQGLIRAGKVEAQHILASAPTDRNLCHF
QALGCRTTHSNQEVLQSCLLVIFATKPHVLPVLAEVAPVVTEHILVSVAAGVSLSTLEELLPPNTRVLRVLPNLPC
VVQEGAIVMARGRHVGSSETNLLQHLLLEACGRCEEVPEAYVDIHTGLSGSGVAFVCAFSEALAEAVKMGMPSSL
AHRIAAQTLLGTAKMLLHEGQHQAQLRSDVCTPGGTIYGLHALEQGGGLRAATMSAVEAATCRAKELSRK

Purity: > 95% by HPLC

Concentration: 0.25 mg/ml (determined by Bradford assay)

Endotoxin Level: <1.0 EU per 1 ug of protein (determined by LAL method)

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.