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## Product Data Sheet

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Product Name: PYCRL Human  
 Cat. No.: GP22209  
 Batch No.: 1

### Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Pyrroline-5-carboxylate reductase 3; P5C reductase 3; P5CR 3; Pyrroline-5-carboxylate reductase-like protein; PYCRL.		
Amino Acid Sequence	MGSSHHHHHH SSGLVPRGSH MGSMAAAEPS PRRVGFVGAG RMAGAI AQGL IRAGKVEAQH ILASAPTDRN LCHFQALGCR TTHSNQEVLQ SCLLVIFATK PHVLPVLA E VAPVVTTEHI LVSVAAGVSL STLEELLPPN TRVLRVLPNL PCVVQEGAI V MARGRHVGSS ETNLLQHLL E ACGRCEEVPE AYVDIHTGLS GSGVAFVCAF SEALAEGAVK MGMPSSLAHR IAAQTLLGTA KMLLHEGQHP AQLRSDVCTP GGTTIYGLHA LEQGGLRAAT MSAVEAATCR AKELSRK.		
Formulation	The PYCRL solution (0.25mg/ml) contains 20mM Tris-HCl buffer (pH 8.0), 0.2M NaCl, 50% glycerol and 2mM DTT.		

### Introduction

Pyrroline-5-Carboxylate Reductase Like (PYCRL) is a member of the pyrroline-5-carboxylate reductase family and acts as a homodecamer. PYCRL plays a key role in proline bio-synthesis. Proline serves as a non-enzymatic antioxidant to reduce damage caused by reactive oxygen species (ROS) in microorganisms, animals and plants. In the final stage of proline biosynthesis, PYCRL catalyzes the reduction of aldehyde dehydrogenase 4A1 (ALDH4A1) to proline with NAD(P)H as the cofactor.

### Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

### Background

PYCRL Human Recombinant produced in E.coli is a single, non-glycosylated polypeptide

**Caution: Product has not been fully validated for medical applications. For research use only.**

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chain containing 297 amino acids (1-274) and having a molecular mass of 31kDa. PYCRL is fused to a 23 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

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