

# Human Pyrroline-5-Carboxylate Reductase 1, Mitochondrial (PYCR1) ELISA Kit | PYCR1 elisa kit

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| CATALOG #<br><b>AAA331207</b> | REACTIVITY<br><b>Human</b> |
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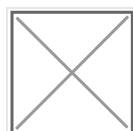
## PRODUCT SYNONYMS

Pyrroline-5-Carboxylate Reductase 1; Mitochondrial (PYCR1); Human Pyrroline-5-Carboxylate Reductase 1; Mitochondrial (PYCR1) ELISA Kit; PYCR1; ARCL2B; P5C; P5CR; PIG45; PP222; PRO3; PYCR; P5C reductase; proliferation-inducing protein 45; PYCR1 elisa kit

## PRODUCT SPECIFICATIONS

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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| Reactivity              | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Specificity             | Human Pyrroline-5-carboxylate reductase 1, mitochondrial (PYCR1) ELISA Kit has high sensitivity and excellent specificity for detection of Human PYCR1. No significant cross-reactivity or interference between Human PYCR1 and analogues was observed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Sequence Length         | 319                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Assay Type              | Sandwich ELISA (Quantitative)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Samples                 | Cell Culture Supernatants, Serum, Plasma, Other Biological Fluids                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Detection Method        | Colorimetric                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Usage Notes             | <ul style="list-style-type: none"> <li>* Do not mix components from different kit lots or use reagents beyond the kit expiration date.</li> <li>* Allow all reagents to warm to room temperature for at least 30 minutes before opening.</li> <li>* Pre-rinse the pipet tip with reagent, use fresh pipet tips for each sample, standard and reagent to avoid contamination.</li> <li>* Unused wells must be kept desiccated at 4 degree C in the sealed bag provided.</li> <li>* Mix Thoroughly is very important for the result. It is recommended using low frequency oscillator or slight hand shaking every 10 minutes.</li> <li>* It is recommended that all samples and standards be assayed in duplicate or triplicate.</li> </ul> |
| Preparation and Storage | Store at 2-8 degree C.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

## IMAGES



Standard Curve (Sample)

Fig.1. Human Pyrroline-5-carboxylate reductase 1, mitochondrial (PYCR1) Standard Curve.

ADDITIONAL INFORMATION

|                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Related Product Information for PYCR1 elisa kit | <p>Description: This Human Pyrroline-5-carboxylate reductase 1, mitochondrial (PYCR1) ELISA Kit employs a two-site sandwich ELISA to quantitate PYCR1 in samples. An antibody specific for PYCR1 has been pre-coated onto a microplate. Standards and samples are pipetted into the wells and any PYCR1 present is bound by the immobilized antibody. After removing any unbound substances, a biotin-conjugated antibody specific for PYCR1 is added to the wells. After washing, Streptavidin conjugated Horseradish Peroxidase (HRP) is added to the wells. Following a wash to remove any unbound avidin-enzyme reagent, a substrate solution is added to the wells and color develops in proportion to the amount of PYCR1 bound in the initial step. The color development is stopped and the intensity of the color is measured.</p> <p>Background: PYCR1 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. The protein forms a homopolymer and localizes to the mitochondrion. Alternate splicing results in two transcript variants encoding different isoforms. The 1,810-bp cDNA hybridized to a 1.85-kb mRNA in samples from human cell lines and predicated a 319-amino acid, 33.4-kD protein. PYCR1 protein colocalized with various mitochondrial markers, including delta-1-pyrroline-5-carboxylate synthetase (P5CS), which also belongs to the proline metabolic pathway. Knockdown of the orthologous genes in Xenopus and zebrafish led to epidermal hypoplasia and blistering that was accompanied by a massive increase in apoptosis.</p> |
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NCBI AND UNIPROT INFORMATION

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|----------------------------------|--------------------------------------------------------------|
| NCBI GI #                        | 533112488                                                    |
| NCBI GeneID                      | 5831                                                         |
| NCBI Accession #                 | NP_001269209.1                                               |
| NCBI GenBank Nucleotide #        | NP_001269209.1                                               |
| UniProt Accession #              | P32322                                                       |
| NCBI Official Full Name          | pyrroline-5-carboxylate reductase 1, mitochondrial isoform 1 |
| NCBI Official Synonym Full Names | pyrroline-5-carboxylate reductase 1                          |
| NCBI Official Symbol             | PYCR1                                                        |
| NCBI Official Synonym Symbols    | P5C; P5CR; PRO3; PYCR; PIG45; PP222; ARCL2B; ARCL3B          |
| NCBI Protein Information         | pyrroline-5-carboxylate reductase 1, mitochondrial           |
| UniProt Protein Name             | Pyrroline-5-carboxylate reductase 1, mitochondrial           |
| UniProt Gene Name                | <b>PYCR1</b>                                                 |
| UniProt Synonym Gene Names       | P5C reductase 1; P5CR 1                                      |
| UniProt Entry Name               | P5CR1_HUMAN                                                  |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.