

**PYCR1 Antibody (C-term)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AW5535**

**Specification**

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**PYCR1 Antibody (C-term) - Product Information**

Application	WB, IHC-P, FC,E
Primary Accession	<a href="#">P32322</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	H=33,36 KDa
Isotype	Rabbit IgG
Antigen Source	HUMAN

**PYCR1 Antibody (C-term) - Additional Information**

**Gene ID** 5831

**Antigen Region**  
291-319

**Other Names**  
Pyrroline-5-carboxylate reductase 1, mitochondrial, P5C reductase 1, P5CR 1, PYCR1

**Dilution**  
WB~~1:1000  
IHC-P~~1:50~100  
FC~~1:10~50

**Target/Specificity**  
This PYCR1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 291-319 amino acids from the C-terminal region of human PYCR1.

**Storage**  
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**  
PYCR1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**PYCR1 Antibody (C-term) - Protein Information**

**Name** PYCR1 ([HGNC:9721](#))

**Function**  
Oxidoreductase that catalyzes the last step in proline biosynthesis, which corresponds to the

reduction of pyrroline-5- carboxylate to L-proline using NAD(P)H (PubMed:<a href="http://www.uniprot.org/citations/16730026" target="\_blank">16730026</a>, PubMed:<a href="http://www.uniprot.org/citations/19648921" target="\_blank">19648921</a>, PubMed:<a href="http://www.uniprot.org/citations/23024808" target="\_blank">23024808</a>, PubMed:<a href="http://www.uniprot.org/citations/28258219" target="\_blank">28258219</a>). At physiologic concentrations, has higher specific activity in the presence of NADH (PubMed:<a href="http://www.uniprot.org/citations/16730026" target="\_blank">16730026</a>, PubMed:<a href="http://www.uniprot.org/citations/23024808" target="\_blank">23024808</a>). Involved in the cellular response to oxidative stress (PubMed:<a href="http://www.uniprot.org/citations/16730026" target="\_blank">16730026</a>, PubMed:<a href="http://www.uniprot.org/citations/19648921" target="\_blank">19648921</a>).

### Cellular Location

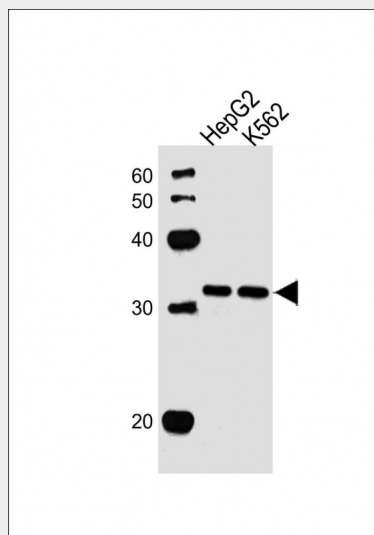
Mitochondrion

### PYCR1 Antibody (C-term) - Protocols

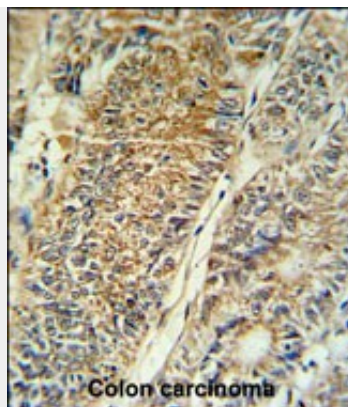
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

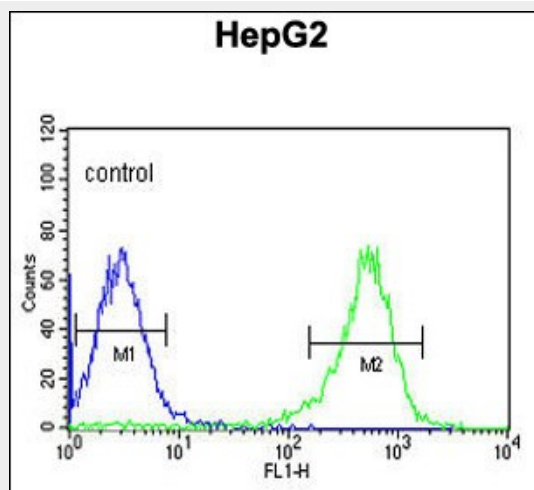
### PYCR1 Antibody (C-term) - Images



All lanes : Anti-PYCR1 Antibody (C-term) at 1:1000 dilution Lane 1: HepG2 whole cell lysate Lane 2: K562 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 33 kDa Blocking/Dilution buffer: 5% NFDN/TBST.



PYCR1 Antibody (C-term) (Cat. #AW5535) IHC analysis in formalin fixed and paraffin embedded colon carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the PYCR1 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.



PYCR1 Antibody (C-term) (Cat. #AW5535) flow cytometric analysis of HepG2 cells (right histogram) compared to a negative control cell (left histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

#### **PYCR1 Antibody (C-term) - Background**

This gene encodes an 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. The protein forms a homopolymer and localizes to the mitochondrion.

#### **PYCR1 Antibody (C-term) - References**

- Reversade, B., et al. *Nat. Genet.* 41(9):1016-1021(2009)
- Guernsey, D.L., et al. *Am. J. Hum. Genet.* 85(1):120-129(2009)
- Meng, Z., et al. *J. Mol. Biol.* 359(5):1364-1377(2006)