

PYCR1 Antibody (C-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9893b

Specification

PYCR1 Antibody (C-term) - Product Information

Application	FC, IHC-P, WB,E
Primary Accession	P32322
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	291-319

PYCR1 Antibody (C-term) - Additional Information

Gene ID 5831

Other Names

Pyrroline-5-carboxylate reductase 1, mitochondrial, P5C reductase 1, P5CR 1, PYCR1

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.

Dilution

FC~~1:10~50

IHC-P~~1:50~100

WB~~1:1000

E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

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:[16730026](#), PubMed:[19648921](#), PubMed:[23024808](#), PubMed:[28258219](#)). At physiologic concentrations, has higher specific activity in the presence of NADH (PubMed:[16730026](#), PubMed:[23024808](#)). Involved in the cellular response to oxidative stress (PubMed:[16730026](#), PubMed:[19648921](#)).

Cellular Location

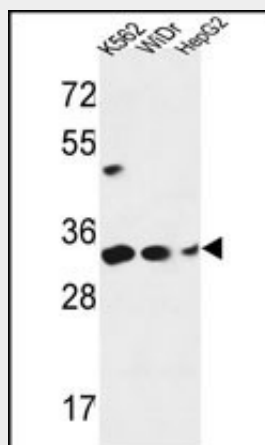
Mitochondrion

PYCR1 Antibody (C-term) - Protocols

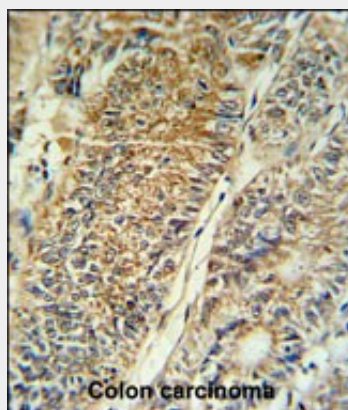
Provided below are standard protocols that you may find useful for product applications.

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

PYCR1 Antibody (C-term) - Images

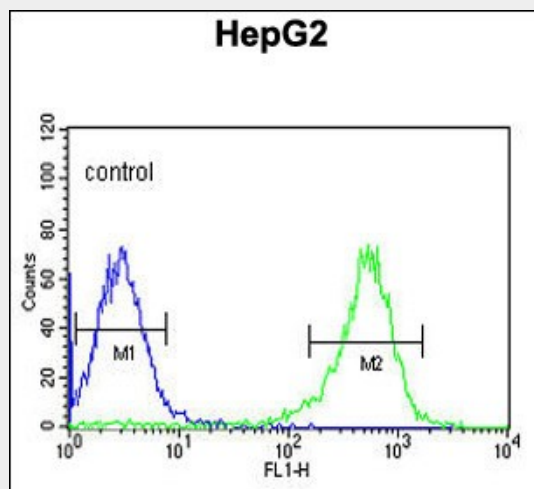


PYCR1 Antibody (C-term) (Cat. #AP9893b) western blot analysis in K562, WiDr, HepG2 cell line lysates (35ug/lane). This demonstrates the PYCR1 antibody detected the PYCR1 protein (arrow).



PYCR1 Antibody (C-term) (Cat. #AP9893b) 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. #AP9893b) 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)

PYCR1 Antibody (C-term) - Citations

- [Pyrroline-5-Carboxylate Reductase 1 Accelerates the Migration and Invasion of Non-small Cell Lung Cancer In Vitro.](#)
- [Knockdown of PYCR1 inhibits cell proliferation and colony formation via cell cycle arrest and apoptosis in prostate cancer.](#)