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PYCR1 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AW5535

Product Information

Application	FC, IHC-P, WB
Primary Accession	P32322
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	33361
Isotype	Rabbit IgG
Antigen Source	HUMAN

Additional Information

Gene ID	5831
Antigen Region	291-319
Other Names	Pyrroline-5-carboxylate reductase 1, mitochondrial, P5C reductase 1, P5CR 1, PYCR1
Dilution	FC~~1:10~50 IHC-P~~1:100~500 WB~~1:1000
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.
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.

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

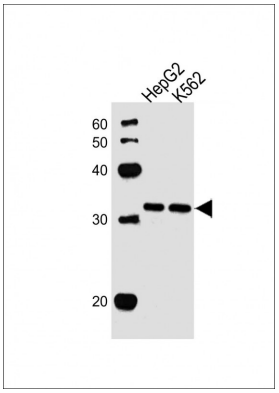
Background

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.

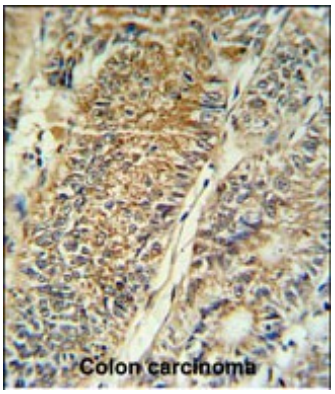
References

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)

Images

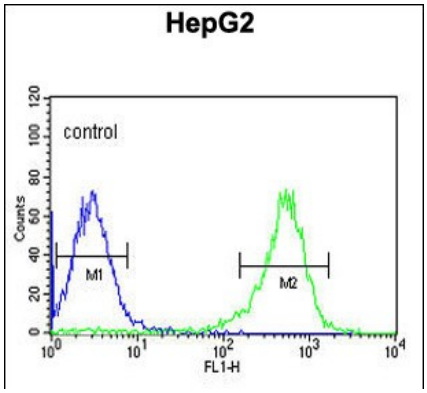


All lanes : Anti-PYCR1 Antibody (C-term) at 1:1000 dilution Lane 1: HepG2 whole cell lysate Lane 2: K562 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 33 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



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.



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.