

For Research Use Only

# PYCR1 Polyclonal antibody

Catalog Number: 13108-1-AP

Featured Product

45 Publications



## Basic Information

**Catalog Number:**

13108-1-AP

**Size:**

150ul, Concentration: 900 µg/ml by Nanodrop;

**Source:**

Rabbit

**Isotype:**

IgG

**Immunogen Catalog Number:**

AG3764

**GenBank Accession Number:**

BC022244

**GeneID (NCBI):**

5831

**UNIPROT ID:**

P32322

**Full Name:**

pyrroline-5-carboxylate reductase 1

**Calculated MW:**

319 aa, 33.8 kDa

**Observed MW:**

33 kDa, 35 kDa

**Purification Method:**

Antigen affinity purification

**Recommended Dilutions:**

WB 1:1000-1:4000

IP 0.5-4.0 µg for 1.0-3.0 mg of total protein lysate

IHC 1:100-1:400

IF 1:50-1:400

## Applications

**Tested Applications:**

IF, IHC, IP, WB, ELISA

**Cited Applications:**

WB, IP, IHC, IF

**Species Specificity:**

human, mouse, rat

**Cited Species:**

human, mouse, zebrafish

**Positive Controls:**

**WB:** COLO 320 cells, mouse embryo tissue, human brain tissue, HeLa cells, NIH/3T3 cells, HT-1080 cells mouse brain tissue, rat brain tissue

**IP:** mouse brain tissue,

**IHC:** human prostate cancer tissue,

**IF:** MCF-7 cells,

**Note-IHC:** suggested antigen retrieval with **TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

## Background Information

PYCR1, also named as P5CR1, belongs to the pyrroline-5-carboxylate reductase family. It is a housekeeping enzyme that catalyzes the last step in proline biosynthesis. PYCR1 can utilize both NAD and NADP, but has higher affinity for NAD. It is involved in the cellular response to oxidative stress. Mutation in PYCR1 will cause ARCL type II (ARCL2B). Some mutation will cause DeBary syndrome (DBS) which is characterized by progeroid features, ophthalmological abnormalities, intrauterine growth retardation, and cutis laxa. The MW of PYCR1 is about 33-35 kDa. PYCR1 has 3 isoforms produced by alternative splicing. This antibody may have cross reaction to PYCR2 due to the high homology.

## Notable Publications

Author	Pubmed ID	Journal	Application
Hisayo Jin	27796797	Cell Stress Chaperones	
Ling Guo	33004813	Nat Commun	WB, IHC, IP
Yingyi Ye	30568501	Cancer Manag Res	WB

## Storage

**Storage:**

Store at -20°C. Stable for one year after shipment.

**Storage Buffer:**

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

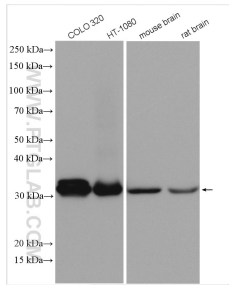
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

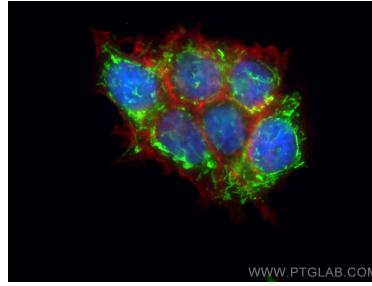
E: proteintech@ptglab.com  
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

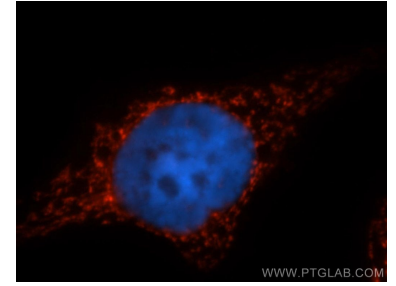
## Selected Validation Data



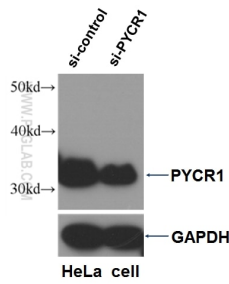
Various lysates were subjected to SDS PAGE followed by western blot with 13108-1-AP (PYCR1 antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



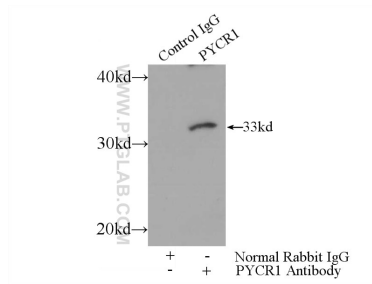
Immunofluorescent analysis of (4% PFA) fixed MCF-7 cells using PYCR1 antibody (13108-1-AP) at dilution of 1:400 and CoraLite@488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L), CL594-Phalloidin (red).



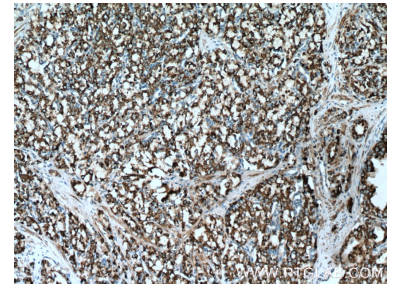
Immunofluorescent analysis of MCF-7 cells, using PYCR1 antibody 13108-1-AP at 1:50 dilution and Rhodamine-labeled goat anti-rabbit IgG (red). Blue pseudocolor = DAPI (fluorescent DNA dye).



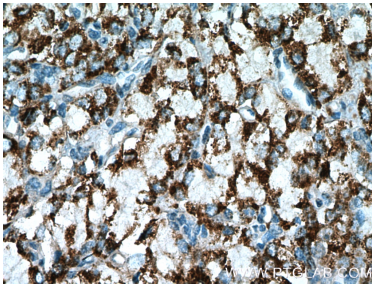
WB result of PYCR1 antibody (13108-1-AP, 1:5000) with si-Control and si-PYCR1 transfected HeLa cells.



IP result of anti-PYCR1 (IP:13108-1-AP, 3ug; Detection:13108-1-AP 1:700) with mouse brain tissue lysate 4000ug.



Immunohistochemical analysis of paraffin-embedded human prostate cancer tissue slide using 13108-1-AP (PYCR1 Antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human prostate cancer tissue slide using 13108-1-AP (PYCR1 Antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).