For Research Use Only

PYCR1 Polyclonal antibody

Catalog Number:13108-1-AP Featured Product 46 Publications

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Basic Information

Catalog Number:
13108-1-AP

Size:
900 μg/ml

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 ug for 1.0-3.0 mg of total protein lysate
IHC 1:100-1:400
IF 1:50-1:400

Applications

Tested Applications:
IF/ICC, IHC, IP, WB, ELISA

Cited Applications:
WB, IP, IF, IHC

Species Specificity:
human, mouse, rat

Cited Species:
human, mouse, zebrafish

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

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,

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 DeBarsy 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

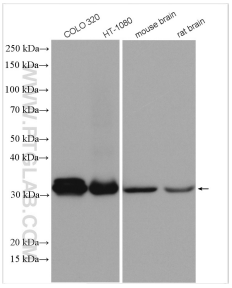
Author	Pubmed ID	Journal	Application
Hisayo Jin	27796797	Cell Stress Chaperones	
Ling Guo	33004813	Nat Commun	WB,IHC,IP
Yingyi Ye	30568501	Cancer Manag Res	WB

Storage

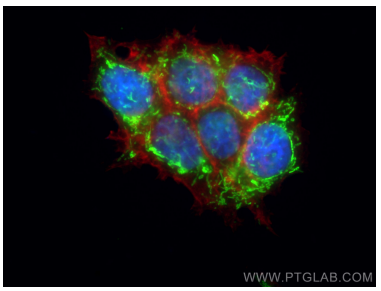
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

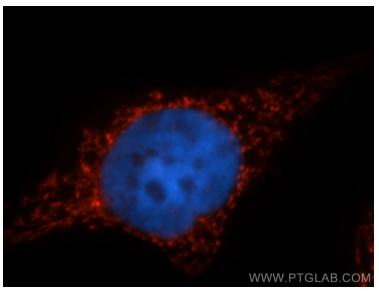
Selected Validation Data



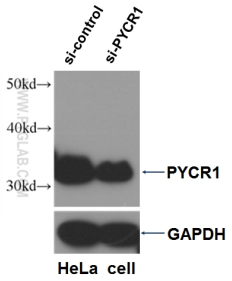
Various lysates were subjected to SDS PAGE followed by western blot with 13108-1-AP (PYCR1 antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



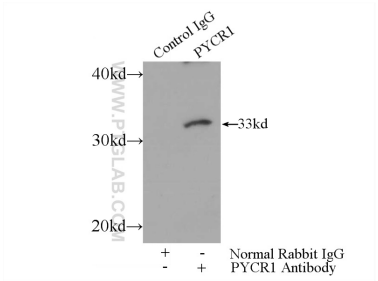
Immunofluorescent analysis of (4% PFA) fixed MCF-7 cells using PYCR1 antibody (13108-1-AP) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L), CL594-Phalloidin (red).



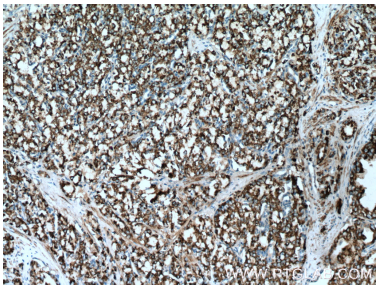
Immunofluorescent analysis of MCF-7 cells, using PYCR1 antibody 13108-1-AP at 1:50 dilution and Rhodamine-labeled goat anti-rabbit IgG (red). Blue pseudocolor = DAPI (fluorescent DNA dye).



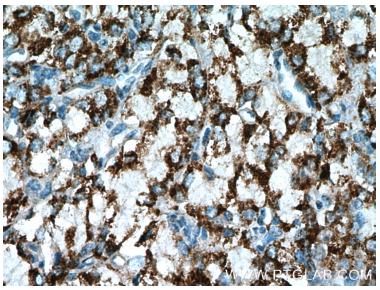
WB result of PYCR1 antibody (13108-1-AP, 1:5000) with si-Control and si-PYCR1 transfected HeLa cells.



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).