### For Research Use Only

# PYCR1 Monoclonal antibody

Catalog Number:66510-1-lg 2 Publications



**Basic Information** 

Catalog Number: GenBank Accession Number: 66510-1-lg BC022244

Protein A purification GeneID (NCBI): Size: CloneNo.:

150ul, Concentration: 1800 ug/ml by 5831 1H2G1 Nanodrop and 1000 ug/ml by Bradford<sub>UNIPROT ID:</sub> Recommended Dilutions: method using BSA as the standard; P32322

Source: Full Name: Mouse pyrroline-5-carboxylate reductase 1

Isotype: Calculated MW: IgG2a 319 aa, 33.8 kDa Immunogen Catalog Number: Observed MW: AG17919 33 kDa, 35 kDa

**Applications** 

**Tested Applications:** 

WB, IHC, IF/ICC, ELISA Cited Applications:

WB, IHC

Species Specificity: human, mouse, rat

Cited Species: human

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: HeLa cells, HEK-293 cells, COLO 320 cells, MCF-7 cells, HSC-T6 cells, NIH/3T3 cells, RAW 264.7 cells

**Purification Method:** 

WB 1:1000-1:6000

IF/ICC 1:400-1:1600

IHC 1:150-1:600

IHC: human breast cancer tissue,

IF/ICC: HeLa 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.

#### **Notable Publications**

Author	Pubmed ID	Journal	Application
Yimin Sun	36366731	Cancer Med	WB
Ola A Harb	37982568	Appl Immunohistochem Mol Morphol	IHC

Storage

Storage:

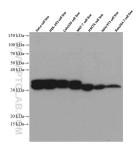
Store at -20°C. Stable for one year after shipment.

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

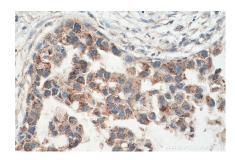
Aliquoting is unnecessary for -20°C storage

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

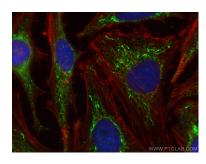
### **Selected Validation Data**



Various lysates were subjected to SDS PAGE followed by western blot with 66510-1-1g (PYCR1 antibody) at dilution of 1:3000 incubated at room temperature for 1 hour.



Immunohistochemical analysis of paraffinembedded human breast cancer tissue slide using 66510-1-1g (PYCR1 antibody) at dilution of 1:300 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed HeLa cells using PYCR1 antibody (66510-1-lg, Clone: 1H2G1) at dilution of 1:800 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L), CL594-Phalloidin (red).