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PYCR2 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP11852c

Product Information

Application	WB, IHC-P, E
Primary Accession	Q96C36
Other Accession	Q6AY23, Q922Q4, Q4R6W7, Q17QJ7, NP_037460.2
Reactivity	Human
Predicted	Bovine, Monkey, Mouse, Rat, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB31401
Calculated MW	33637
Antigen Region	89-116

Additional Information

Gene ID	29920
Other Names	Pyrroline-5-carboxylate reductase 2, P5C reductase 2, P5CR 2, PYCR2
Target/Specificity	This PYCR2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 89-116 amino acids from the Central region of human PYCR2.
Dilution	WB~~1:1000 IHC-P~~1:100~500 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	PYCR2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PYCR2 (HGNC:30262)
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:23024808, PubMed:2722838, PubMed:6894153). At

	physiologic concentrations, has higher specific activity in the presence of NADH (PubMed:23024808, PubMed:2722838, PubMed:6894153). Involved in cellular response to oxidative stress (PubMed:25865492). In some cell types, such as erythrocytes, its primary function may be the generation of NADP(+) (PubMed:2722838, PubMed:6894153).
Cellular Location	Cytoplasm. Mitochondrion
Tissue Location	Detected in erythrocytes (at protein level) (PubMed:2722838, PubMed:6894153). Expressed in fetal brain (PubMed:25865492).

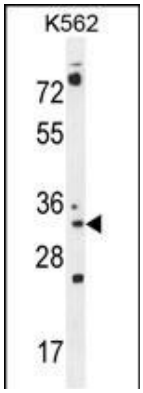
Background

PYCR2 belongs to the pyrroline-5-carboxylate reductase family. Pyrroline-5-carboxylate reductase catalyzes the the NAD(P)H-dependent conversion of proline to pyrroline-5-carboxylate.

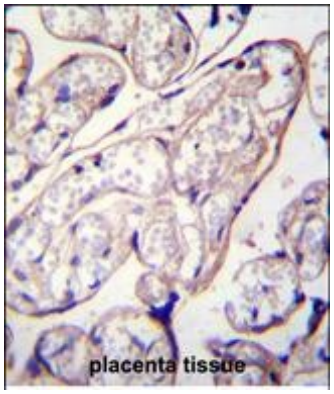
References

Lamesch, P., et al. Genomics 89(3):307-315(2007)
Lim, J., et al. Cell 125(4):801-814(2006)
Colland, F., et al. Genome Res. 14(7):1324-1332(2004)

Images



PYCR2 Antibody (Center) (Cat. #AP11852c) western blot analysis in K562 cell line lysates (35ug/lane).This demonstrates the PYCR2 antibody detected the PYCR2 protein (arrow).



PYCR2 Antibody (Center) (Cat. #AP11852c)immunohistochemistry analysis in formalin fixed and paraffin embedded human placenta tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of PYCR2 Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.

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