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PYCR1 Rabbit pAb

Catalog # AP99052

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q922W5
Other Accession	Q922W5
Reactivity	Mouse
Predicted	Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	32373
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from mouse PYCR1
Epitope Specificity	241-309/309
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the pyrroline-5-carboxylate reductase family.
SUBUNIT	Homodecamer; composed of 5 homodimers.
DISEASE	The disease is caused by mutations affecting the gene represented in this entry. Disease description:A disorder characterized by an excessive congenital skin wrinkling, a large fontanelle with delayed closure, a typical facial appearance with downslanting palpebral fissures, a general connective tissue weakness, and varying degrees of growth and developmental delay and neurological abnormalities. Patients do not manifest metabolic abnormalities.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Aug 2013]

Additional Information

Gene ID	209027
Other Names	P5CR 1; P5CR1; P5CR1_MOUSE; Pycr1; P5C reductase 1; 1.5.1.2; B2RYR3_RAT; ARCL2B; ARCL3B; P5C; P5CR; PIG45; PP222; PRO3; PYCR; pyrroline-5-carboxylate reductase 1
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	Pycr1 {ECO:0000312|MGI:MGI:2384795}
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. At physiologic concentrations, has higher specific activity in the presence of NADH. Involved in the cellular response to oxidative stress.
Cellular Location	Mitochondrion {ECO:0000250|UniProtKB:P32322}.
Tissue Location	Highly expressed in osteoblasts and skin.

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