

**PYCR2 Antibody (Center) Blocking peptide**  
**Synthetic peptide**  
**Catalog # BP11852c****Specification**

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**PYCR2 Antibody (Center) Blocking peptide - Product Information**Primary Accession [Q96C36](#)**PYCR2 Antibody (Center) Blocking peptide - Additional Information****Gene ID** 29920**Other Names**

Pyrroline-5-carboxylate reductase 2, P5C reductase 2, P5CR 2, PYCR2

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**PYCR2 Antibody (Center) Blocking peptide - Protein Information****Name** PYCR2**Function**

Housekeeping enzyme that catalyzes the last step in proline biosynthesis. In some cell types, such as erythrocytes, its primary function may be the generation of NADP(+). Can utilize both NAD and NADP. Has higher affinity for NADP, but higher catalytic efficiency with NADH (PubMed:<a href="http://www.uniprot.org/citations/2722838" target="\_blank">2722838</a>, PubMed:<a href="http://www.uniprot.org/citations/6894153" target="\_blank">6894153</a>). Involved in cellular response to oxidative stress (PubMed:<a href="http://www.uniprot.org/citations/25865492" target="\_blank">25865492</a>).

**Cellular Location**

Cytoplasm. Mitochondrion

**Tissue Location**

Detected in erythrocytes (at protein level) (PubMed:2722838, PubMed:6894153). Expressed in fetal brain (PubMed:25865492).

**PYCR2 Antibody (Center) Blocking peptide - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

#### **PYCR2 Antibody (Center) Blocking peptide - Images**

#### **PYCR2 Antibody (Center) Blocking peptide - Background**

This gene encodes a member of the Ser/Thr protein kinase family and the TGF $\beta$  receptor subfamily. The encoded protein is a transmembrane protein that has a protein kinase domain, forms a heterodimeric complex with another receptor protein, and binds TGF- $\beta$ . This receptor/ligand complex phosphorylates proteins, which then enter the nucleus and regulate the transcription of a subset of genes related to cell proliferation. Mutations in this gene have been associated with Marfan Syndrome, Loeys-Deitz Aortic Aneurysm Syndrome, and the development of various types of tumors. Alternatively spliced transcript variants encoding different isoforms have been characterized.

#### **PYCR2 Antibody (Center) Blocking peptide - References**

Inamoto, S., et al. Cardiovasc. Res. 88(3):520-529(2010) Bianchini, G., et al. J. Clin. Oncol. 28(28):4316-4323(2010) Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010) Kim, J.N., et al. Toxicology 275 (1-3), 29-35 (2010) Jugessur, A., et al. PLoS ONE 5 (7), E11493 (2010) :