

## Product datasheet for **RC204525**

### **PYCR2 (NM\_013328) Human Tagged ORF Clone**

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PYCR2 (NM_013328) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PYCR2
Synonyms:	HLD10; P5CR2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC204525 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAGCGTGGGCTTCATCGGGCCGCCAGCTGGCCTATGCTCTGGCGGGGGCTTCACGGCCGAGGCA  
TCCTGTCGGCTCACAAGATAATAGCCAGCTCCCCAGAAATGAACCTGCCACGGTGTCCGCGCTCAGGAA  
GATGGGTGTGAACCTGACACGCAGCAACAAGGAGACGGTGAAGCACAGCGACGTCCTGTTTCTGGCTGTG  
AAGCCACATATCATCCCCTTCATCCTGGATGAGATTGGGGCCGACGTGCAAGCCAGACACATCGTGGTCT  
CCTGTGCGGCTGGTGTACCATCAGCTCTGTGGAGAAGAAGCTGATGGCATTCCAGCCAGCCCCAAAGT  
GATTTCGCTGCATGACCAACACACCTGTGGTAGTGCAAGGAGCGCTACAGTGTACGCCACGGGCACCCAT  
GCCCTGGTGGAGGATGGGCAGCTCCTGGAGCAGCTCATGAGCAGCGTGGGCTTCTGCACTGAGGTGGAAG  
AGGACCTCATCGATGCCGTACGGGGCTCAGTGGCAGCGGGCCTGCCTATGCATTCATGGCTCTGGACGC  
ATTGGCTGATGGTGGGTGAAGATGGGTTTGCCACGGCGCCTGGCAATCCAACCTCGGGGCCAGGCTTTG  
CTGGGAGCTGCCAAGATGCTGCTGGACTCGGAGCAGCATCCATGCCAGCTTAAGGACAATGTCTGCTCCC  
CTGGGGAGCCACCATCCACGCCCTGCACTTTCTAGAGAGTGGGGCTTCCGCTCTCTGCTCATCAATGC  
AGTTGAGGCCTCCTGTATCCGAACACGAGAGCTACAGTCCATGGCCGACCAAGAAAAGATCTCCCCAGCT  
GCCCTTAAGAAGACCCTTTAGACAGAGTGAAGCTGGAATCCCCACAGTCTCCACACTGACCCCTCCA  
GCCAGGAAGCTCCTACAAGAAGCCTGGCCCTGGGAGGCAAGAAGGAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC204525 protein sequence  
Red=Cloning site Green=Tags(s)

MSVGFIGAGQLAYALARGFTAAGILSAHKIIASSPEMNLPTVSALRKMGNLTRSNKETVKHSDVFLAV  
 KPHIIPFILDEIGADVQARHIVVSCAAGVTISSVEKKLMAFQPAPKVIRCMTNTPVVVQEGATVYATGTH  
 ALVEDGQLLLEQLMSSVGFCTEVEEDLIDAVTGLSGSGPAYAFMALDALADGGVKMGLPRRLAIQLGAQAL  
 LGAAKMLLDSEQHPCQLKDNVCSPPGGATIHAIHFLESGGFRSLLINAVEASCIRTRELQSMADQEIKSPA  
 ALKKTLLDRVKLESPTVSTLTPSSPGKLLTRSLALGGKKD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6010\\_b03.zip](https://cdn.origene.com/chromatograms/mk6010_b03.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_013328

**ORF Size:** 960 bp

**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

**Reconstitution Method:**

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

**RefSeq:** [NM\\_013328.4](#)

**RefSeq Size:** 1771 bp

**RefSeq ORF:** 963 bp

**Locus ID:** 29920

**UniProt ID:** [Q96C36](#)

**Cytogenetics:** 1q42.12

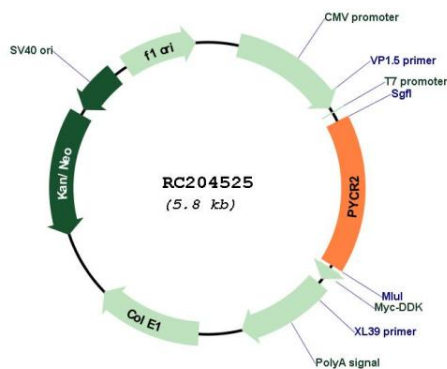
**Domains:** P5CR

**Protein Pathways:** Arginine and proline metabolism, Metabolic pathways

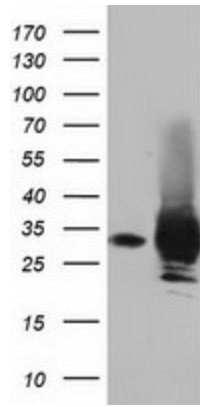
**MW:** 33.6 kDa

**Gene Summary:** This gene belongs to the pyrroline-5-carboxylate reductase family. The encoded mitochondrial protein catalyzes the conversion of pyrroline-5-carboxylate to proline, which is the last step in proline biosynthesis. Alternatively spliced transcript variants have been described for this gene. [provided by RefSeq, Nov 2012]

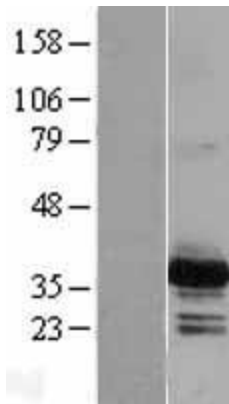
## Product images:



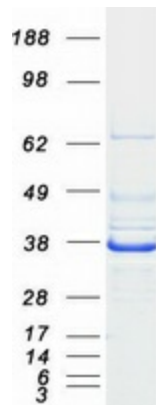
Circular map for RC204525



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PYCR2 (Cat# RC204525, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-PYCR2(Cat# [TA501877]). Positive lysates [LY402246] (100ug) and [LC402246] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY402246]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204525 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PYCR2 protein (Cat# [TP304525]). The protein was produced from HEK293T cells transfected with PYCR2 cDNA clone (Cat# RC204525) using MegaTran 2.0 (Cat# [TT210002]).