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Product datasheet for RC203382

PYCR3 (NM_023078) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PYCR3 (NM_023078) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PYCR3
Synonyms:	PYCRL
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC203382 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCAGCTGCGGAGCCGTCTCCGCGGCGCGTGGGCTTCGTGGGCGCGGGCCGCATGGCGGGGGCCATCG
CGCAGGGCCTCATCAGAGCAGGAAAAGTGGAAGCTCAGCACATACTGGCCAGTGCACCAACAGACAGGAA
CCTATGTCACTTTCAAGCTCTGGGTTGCCGGACCACGCACTCCAACCAGGAGGTGCTGCAGAGCTGCCTG
CTCGTCATCTTTGCCACCAAGCCTCATGTGCTGCCAGCTGTCCTGGCAGAGGTGGCTCCTGTGGTCACCA
CTGAACACATCTTGGTGTCCGTGGCTGCTGGGGTGTCTCTGAGCACCCTGGAGGAGCTGCTGCCCCCAAA
CACACGGGTGCTGCGGGTCTTGCCCAACCTGCCCTGTGTGGTCCAGGAAGGGGCCATAGTGATGGCGCGG
GGCCGCCACGTGGGGAGCAGCGAGACCAACCTCCTGCAGCATCTGCTGGAGGCCTGTGGGCGGTGTGAGG
AGGTGCCTGAAGCCTACGTCGACATCCACACTGGCCTCAGTGGCAGTGGCGTGGCCTTCGTGTGTGCATT
CTCCGAGGCCCTGGCTGAAGGAGCCGTCAAGATGGGCATGCCCAGCAGCCTGGCCCACCGCATCGCTGCC
CAGACCCTGCTGGGGACGGCCAAGATGCTGCTGCACGAGGGCCAACACCCAGCCCAGCTGCGCTCAGACG
TGTGCACCCCGGGTGGCACCACCATCTATGGACTCCACGCCCTGGAGCAGGGCGGGCTGCGAGCAGCCAC
CATGAGCGCCGTGGAGGCTGCCACCTGCCGGGCCAAGGAGCTCAGCAGAAAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC203382 protein sequence
Red=Cloning site Green=Tags(s)

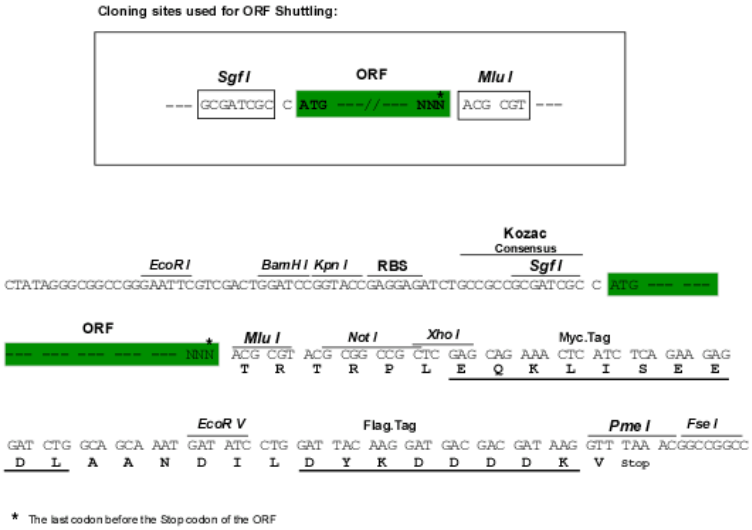
MAAAEPSPRRVGFVGAGRMAGAIAQGLIRAGKVEAQHILASAPTDRNLCHFQALGCRTTHSNQEVLQSCL
LVIFATKPHVLPAVLAEVAPVVTTEHILVSVAAGVSLSTLEELLPPNTRVLRVLPNLPCVVQEGAIVMAR
GRHVGSSETNLLQHLLEACGRCEEVPEAYVDIHTGLSGSGVAFVCAFSEALAEGAVKMGMPSSLAHRIAA
QTLLGTAKMLLHEGQHPAQLRSDVCTPGGTTIYGLHALEQGGLRAATMSAVEAATCRAKELSRK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6413_f02.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_023078

ORF Size: 822 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_023078.1, NP_075566.1

RefSeq Size: 2678 bp

RefSeq ORF: 825 bp

Locus ID: 65263

UniProt ID: Q53H96

Cytogenetics: 8q24.3

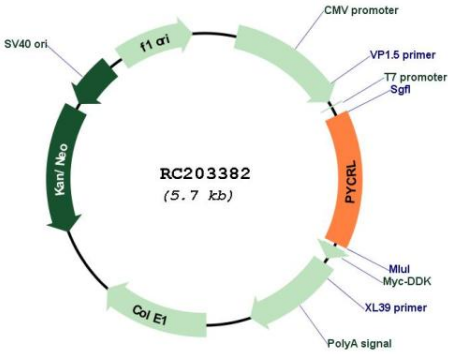
Domains: P5CR

Protein Pathways: Arginine and proline metabolism, Metabolic pathways

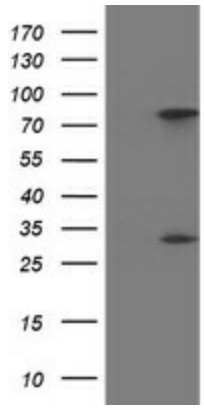
MW: 28.6 kDa

Gene Summary: This gene encodes a protein that belongs to the pyrroline-5-carboxylate reductase family of enzymes. Members of this family catalyze the final step in proline biosynthesis, converting pyrroline-5-carboxylate to proline. Glutamate and ornithine are precursors in the synthesis of proline. The protein encoded by this gene is a cytoplasmic enzyme involved in the biosynthesis of proline from ornithine. [provided by RefSeq, Aug 2016]

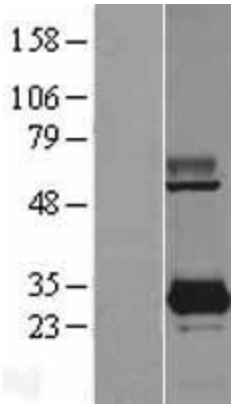
Product images:



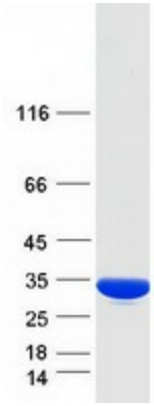
Circular map for RC203382



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PYCRL (Cat# RC203382, 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-PYCRL(Cat# [TA502033]). Positive lysates [LY411510] (100ug) and [LC411510] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY411510]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203382 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PYCR3 protein (Cat# [TP303382]). The protein was produced from HEK293T cells transfected with PYCR3 cDNA clone (Cat# RC203382) using MegaTran 2.0 (Cat# [TT210002]).