

Product datasheet for **RG205833**

CYB5R1 (NM_016243) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CYB5R1 (NM_016243) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CYB5R1
Synonyms:	B5R.1; B5R1; B5R2; humb5R2; NQO3A2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG205833 representing NM_016243 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGGATCCAGACGAGCCCCGTCCTGCTGGCCTCCCTGGGGTGGGCTGGTCACTCTGCTCGGCCTGG
CTGTGGGCTCCTACTTGGTTCGGAGGTCCCGCCGGCCTCAGGTCCTCTCCTGGACCCCAATGAAAAGTA
CCTGCTACGACTGCTAGACAAGACGACTGTGAGCCACAACACCAAGAGGTTCCGCTTTCCTGCCACC
GCCACCACACTCTGGGCTGCCTGTGGCAAACATATCTACCTCTCCACCCGAATTGATGGCAGCCTGG
TCATCAGGCCATACACTCTGTACCAGTGATGAGGATCAAGGCTATGTGGATCTTGTCATCAAGGTCTA
CCTGAAGGGTGTGACCCCAAATTTCTGAGGGAGGGAAGATGTCTCAGTACCTGGATAGCCTGAAGGTT
GGGGATGTGGTGGAGTTTCGGGGCCAAGCGGGTGTCTCACTTACACTGGAAAAGGGCATTTTAACATTC
AGCCCAACAAGAAATCTCCACCAGAACCCGAGTGGCGAAGAACTGGGAATGATTGCCGGCGGGACAGG
AATCACCCCAATGCTACAGCTGATCCGGGCCATCCTGAAAGTCCCTGAAGATCCAACCCAGTGCTTTCTG
CTTTTTGCCAACCAGACAGAAAAGGATATCATCTTGCGGGAGGACTTAGAGGAACTGCAGGCCCGCTATC
CCAATCGCTTTAAGCTCTGGTTCCTGATCATCCCCAAAAGATTGGGCCTACAGCAAGGGCTTTGT
GACTGCCGACATGATCCGGGAACACCTGCCCGCTCCAGGGGATGATGTGCTGGTACTGCTTTGTGGGCCA
CCCCAATGGTGCAGCTGGCCTGCCATCCCAACTTGGACAAACTGGGCTACTCACAAAAGATGCGATTCA
CCTAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG205833 representing NM_016243
 Red=Cloning site Green=Tags(s)

MGIQTSPVLLASLGVGLVTLGLAVGSYLVRRSRPQVTLDPNEKYLRLLDKTTVSHNTKRFRFALPT
 AHHTLGLPVGKHIYLSTRIDGSLVIRPYTPVTSDEDQGYVDLVIKVYLGKVHPKFPEGGKMSOYLDLKV
 GDVVEFRGSPGLLTYTGKGFNIQPNKSPPEPRVAKKLGMIAGGTGITPMLQLIRAILKVPEDPTQCFL
 LFNQTEKDIILREDLEELQARYPNRFLWFTLDHPPKDWAYSKGFVTADMIREHLPA PGDDVLVLLCGP
 PPMVQLACHPNLDKLGYSQKMRFTY

TRTRPLE - GFP Tag - V

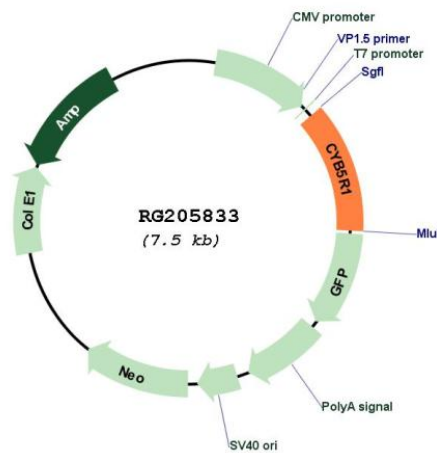
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM_016243

ORF Size: 915 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:	<ol style="list-style-type: none">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_016243.3
RefSeq Size:	1675 bp
RefSeq ORF:	918 bp
Locus ID:	51706
UniProt ID:	Q9UHQ9
Cytogenetics:	1q32.1
Domains:	NAD_binding_1, FAD_binding_6
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Amino sugar and nucleotide sugar metabolism
Gene Summary:	NADH-cytochrome b5 reductases are involved in desaturation and elongation of fatty acids, cholesterol biosynthesis, drug metabolism, and, in erythrocyte, methemoglobin reduction. [UniProtKB/Swiss-Prot Function]