

Product datasheet for **RG217552**

CYB5R3 (NM_007326) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CYB5R3 (NM_007326) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CYB5R3
Synonyms:	B5R; DIA1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG217552 representing NM_007326 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGGGCCAGCTCAGCACGTTGGGCCATATGGTGCTCTCCAGTCTGGTTCCTGTACAGTCTGCTCA
TGAAGCTGTTCCAGCGCTCCACGCCAGCCATCACCTCGAGAGCCCGGACATCAAGTACCCGCTGCGGT
CATCGACCGGGAGATCATCAGCCATGACACCCGGCGCTCCGCTTTGCCCTGCCGTACCCAGCACATC
CTGGGCTCCCTGTCGGCCAGCACATCTACCTCTCGGCTCGAATTGATGAAAACCTGGTCGTCGGCCCT
ATACACCCATCTCCAGCGATGATGACAAGGGCTTCGTGGACCTGGTCATCAAGGTTTACTTCAAGGACAC
CCATCCCAAGTTTCCCGCTGGAGGGAAGATGTCTCAGTACCTGGAGAGCATGCAGATTGGAGACACCATT
GAGTTCGGGGGCCAGTGGGCTGCTGGTCTACCAGGGCAAAGGGAAGTTCGCCATCCGACCTGACAAAA
AGTCCAACCTATCATCAGGACAGTGAAGTCTGTGGGCATGATCGCGGGAGGGACAGGCATCACCCCGAT
GCTGCAGGTGATCCGCGCCATCATGAAGGACCCTGATGACCACACTGTGTGCCACCTGCTCTTTGCCAAC
CAGACCGAGAAGGACATCCTGCTGCGACCTGAGCTGGAGGAACTCAGGAACAAACATTCTGCACGCTTCA
AGCTCTGGTACACGCTGGACAGAGCCCTGAAGCCTGGGACTACGGCCAGGGCTTCGTGAATGAGGAGAT
GATCCGGGACACCTTCCACCCAGAGGAGGACCGCTGGTGTGATGTGTGGCCCCCACCATGATC
CAGTACGCCTGCCTTCCCAACCTGGACCAGTGGGCCACCCACGGAGCGCTGCTTCGTCTTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG217552 representing NM_007326
Red=Cloning site Green=Tags(s)

MGAQLSTLGHMVLFPVWFLYSLLMKLFQRSTPAITLESPIKYLRLIDREIISHDTRFRFALPSPQHI
 LGLPVGQHIYLSARIDGNLVVRPYTPISDDDKGFVDLVIKVFYKDHKFPAGGKMSQYLESMQIGDTI
 EFRGSPGLLVYQKGFKAIRPKKSNPIIRTVKSVMGIAGGTGITPMLQVIRAIMKDDHTVCHLLFAN
 QTEKDILLRPELEELRNKHSARFKLWYTLDRAPEAWDYGQGFVNEEMIRDHLPPPEEEPLVLMCGPPPMI
 QYACLPLNDHVGHPTEFCVF

TRTRPLE - GFP Tag - V

Restriction Sites:

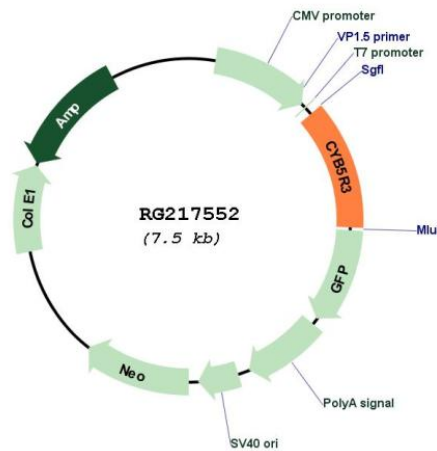
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM_007326

ORF Size: 834 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_007326.2 , NP_015565.1
RefSeq Size:	2000 bp
RefSeq ORF:	837 bp
Locus ID:	1727
UniProt ID:	P00387
Cytogenetics:	22q13.2
Protein Families:	Druggable Genome
Protein Pathways:	Amino sugar and nucleotide sugar metabolism
Gene Summary:	This gene encodes cytochrome b5 reductase, which includes a membrane-bound form in somatic cells (anchored in the endoplasmic reticulum, mitochondrial and other membranes) and a soluble form in erythrocytes. The membrane-bound form exists mainly on the cytoplasmic side of the endoplasmic reticulum and functions in desaturation and elongation of fatty acids, in cholesterol biosynthesis, and in drug metabolism. The erythrocyte form is located in a soluble fraction of circulating erythrocytes and is involved in methemoglobin reduction. The membrane-bound form has both membrane-binding and catalytic domains, while the soluble form has only the catalytic domain. Alternate splicing results in multiple transcript variants. Mutations in this gene cause methemoglobinemias. [provided by RefSeq, Jan 2010]