

Product datasheet for **RR207642**

Cyb5r4 (NM_133427) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cyb5r4 (NM_133427) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Cyb5r4
Synonyms:	b5&b5R; b5+b5R; cb5/cb5R; Ncb5or
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>RR207642 representing NM_133427
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCTGAACGTCCTTCCAGGCTTCCCGGCCCCCGGCTCCAGCAGCGCGTTGCCTCCAGGGCGTA
 GCAAGGTACCTTTAAAACAAGGCAGGAGTCTTATGGATTGGATCCGATTGACAAAAGTGGAAAGGACTT
 CACGGGATTGAAGGGCGGGTAAATTGAAGTAACAGAAGAAGAACTTAAGAAGCACAAAGAAGAGCAGC
 TGTTGGATATGCATAAGAGGGTTTGTACAATGTCAGCCATATATGGAGTATCATCTGGTGGGAGG
 ATGAGCTTATGAGAGCCGAGGAGCAGATGGAACGGATCTTTTTAATGAGGTGCATCGTTGGGCAATTA
 TGAATCCATGCTGAAAGAGTGCCTGGTTGGCAGGATGGCTGTGAAGCCCCTGTTCCGAAAGACTGTCAT
 GAAGGAAAGAGAGTCTTAAATGGCATGCTTCCAAGAGCCAAGTGACAGACACTGCCAGGGAAGGCC
 CCAGTTCTCAAGCTATGATTGGTTCCAACAGAGTCTTCAGTGACCATTGTTATACACCAAGCAGAA
 GAATATCAATTTAGACTCAGTAATCGTTGACCTCCAGGATGACTCCTTGAGAGCAGAAGCAGTCATCAAG
 GATCATTCTTATCTTATACATATTGGGTTAAGCCATGAAGTTCAAGAAAAATTTTCTGTACGGGTTATTG
 AGAATGTTGAAAAATAGAGATTGCTCTACAAAAGAAAGAACTGTTTCTTGAAATGTCTTGGTATCC
 CCTGGAGAAACATGATTCTTTATTCCAAGAAAGATACAGGCTTGTACTATAGACAGTGCCAGTTAATT
 TCCAAGGAAGACGTTACTCATGACACAAGGCTCTTCTGTCTGATGCTGCCTCCAGTACTCACCTCAGG
 TGCCAGTTGGGCAACATGTTTACCTCAAGCTCAGTGTACAGGTGCAGAAATAGTAAAGCCATATACACC
 CGTGTCTGAGTCTTACTCTCAGATTTTAAAGAACCAGTCTTTCCCAAATAAGTACATCTACTTTTTG
 ATCAAAATCTATCTGCTGGACTCTTACGCCAGAAGTATGATCGTCTTTCAGATTGGAGATTTTGTCTG
 TAAGTGGTCTGAGGGCAATTTTAAAGTTTCCAAACTCCAGGAAGTGAAGATCTTTTTATTGGCAGC
 CGGAACAGGCTTACACCAATGGTTACTGTACTGAATCAGCGTTTAACTCACATGTCCAGTCTCAGGAAG
 GTGAAGTTAATGTTCTTCAATAAAAACAGAGGATGACATAATTTGGAGATGCCAGCTAGAGAAATGGCAT
 TAAAAGATAAAAGATTTTCAATGTTGAATATGTTCTCTCGGCACCTTCCCAGAATGGAATGGCAAACAGG
 ACACGTGTACGAGCTCTTCTCTGAATTTTGAACGAAGTTTAAAAATTCTAAAGTCTTCTTTG
 ATCTGTGGACCAACCCATTTACAGATGAGGGGATAAGGTTGCTGCATGATCTTAACTTTCCGATGATG
 AGATTCATGGTTTTACAGCA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RR207642 representing NM_133427
 Red=Cloning site Green=Tags(s)

MLNVPSQAFFPAPGSQQRVASQGRSKVPLKQGRSLMDWIRLTKSGKDFGLKGGLIEVTEEELKKHNKDD
 CWICIRGFVYNVSPYMEYHPGGEDELRAAGADGTDLFNEVHRWVNYESMLKECLVGRMAVKPAVPKDC
 EGKRVLNGMLPKSQVDTLPRGPPSSPYDFWQTESSVTIVYTKQKNINLDSVIVLQDDSLRAEAVIK
 DHSYLIIHIGLSHEVQENFSVRVIENVGKIEIVLQKKETVSWKCLGDPLEKHDSFIPKKDGLYYRQCQLI
 SKEDVTHDTRLFCLMLPPSTHLQVPVQHVYLKLSVTGAEIVKPYTPVSELLSDFKEPVLSPNKYIYFL
 IKIYPAGLFTPELDRQLIGDFVSVSGPEGNFKVSKLQEVEDLFLAAGTGFTPMVTVLNHALTHMSSLRK
 VKLMFFNKTEDDIWRQCLEKLALDKRFHVEYVLSAPSPWNGKQGHVSRALLSEFLQRSLENSKVFLC
 ICGPTPFDEGIRLLHDLNFSDDIEHGFTA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

ACCN:	NM_133427
ORF Size:	1560 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_133427.3 , NP_596918.3
RefSeq Size:	2252 bp
RefSeq ORF:	1563 bp
Locus ID:	171015
UniProt ID:	Q68EJ0
Cytogenetics:	8q31
MW:	58.8 kDa
Gene Summary:	NADH-cytochrome b5 reductase involved in endoplasmic reticulum stress response pathway. Plays a critical role in protecting pancreatic beta-cells against oxidant stress, possibly by protecting the cell from excess buildup of reactive oxygen species (ROS).[UniProtKB/Swiss-Prot Function]