

Product datasheet for **RC207544**

CYBB (NM_000397) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CYBB (NM_000397) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CYBB
Synonyms:	AMCBX2; CGD; CGDX; GP91-1; GP91-PHOX; GP91PHOX; IMD34; NOX2; p91-PHOX
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC207544 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGGAACTGGGCTGTGAATGAGGGCTCTCCATTTTTGTCATTCTGGTTGGCTGGGTTGAACGTCT
 TCCTCTTTGCTGGTATTACCGGTTTATGATATTCCACCTAAGTTCTTTTACACAAGAAAACCTCTTGG
 GTCAGCACTGGCACTGGCCAGGGCCCTGCAGCCTGCCTGAATTTCAACTGCATGCTGATTCTCTTGCCA
 GTCTGTCGAAATCTGCTGTCTTCTCAGGGGTTCCAGTGCCTGCTCAACAAGAGTTCAAGACAAC
 TGGACAGGAATCTCACCTTTCAAAAAAGTGGCAGTGGATGATTGCACCTCACTCTGCGATTACACCAT
 TGCACATCTATTAATGTGAATGGTGTGAATGCCGAGTCAATAATTCTGATCCTTATTAGTAGCA
 CTCTCTGAACTGGAGACAGGCAAAATGAAAGTTATCTCAATTTTCTGCGAAAGAGAATAAAGAACCCTG
 AAGGAGGCTGTACCTGGCTGTGACCCTGTTGGCAGGCATCACTGGAGTTGTCATCACGCTGTGCCTCAT
 ATTAATTACACTTCTCCACCAAAACCATCCGGAGGCTTACTTTGAAGTCTTTTGGTACACACATCAT
 CTCTTTGTGATCTTCTTATTGGCTTGCATCCATGGAGCTGAACGAATTGTACGTGGGACAGCCGAG
 AGAGTTTGGCTGTGCATAATATAACAGTTTGTGAACAAAAATCTCAGAATGGGGAAAAATAAAGGAATG
 CCCAATCCCTCAGTTTGTGAAACCCTCTATGACTTGGAAATGGATAGTGGTCCCATGTTTCTGTAT
 CTCTGTGAGAGTTGGTGCAGTTTGGCGATCTCAACAGAAGGTGGTCAACCAAGGTGGTCACTCACC
 CTTTCAAACCATCGAGCTACAGATGAAGAAGAAGGGTTCAAATGGAAGTGGGACAATACATTTTTGT
 CAAGTGCCCAAAGGTGTCCAAGCTGGAGTGGCACCCCTTTTACTGACATCCGCCCTGAGGAAGACTTC
 TTTAGTATCCATATCCGCATCGTTGGGACTGGACAGAGGGGCTGTTCAATGCTTGTGGCTGTATAAGC
 AGGATTTCAAGATGCGTGGAACTACCTAAGATAGCGTTGATGGGCCCTTTGGCACTGCCAGTGAAGA
 TGTGTTACAGTATGAGGTGGTGTGTTAGTGGGAGCAGGATTGGGGTACACCCCTTCGCATCCATTCTC
 AAGTCAGTCTGGTACAAATATTGCAATAACGCCACCAATCTGAAGCTCAAAAAGTCTACTTCTACTGGC
 TGTGCCGGACACACATGCCTTTGAGTGGTTTGCAGATCTGCTGCAACTGCTGGAGAGCCAGATGCAGGA
 AAGGAACAATGCCGGCTTCTCAGCTACAACATCTACCTCACTGGCTGGGATGAGTCTCAGGCCAATCAC
 TTTGCTGTGCACCATGATGAGGAGAAAGATGTGATCACAGGCCTGAAACAAAAGACTTTGTATGGACGGC
 CCAACTGGGATAATGAATTAAGACAATTGCAAGTCAACACCCTAATACCAGAATAGGAGTTTCTCTG
 TGGACCTGAAGCCTTGGCTGAAACCCTGAGTAAACAAAGCATCTCAACTCTGAGTCTGGCCCTCGGGA
 TGCATTTCAATTTCAACAAGGAAAACCTC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC207544 protein sequence
 Red=Cloning site Green=Tags(s)

MGNWAVNEGLSIFVILVWLGLNVFLVWYRVDIPPFFYTRKLLGSALALARAPAACLNFNCMLILLP
 VCRNLLSFLRGSSACCSTRVRRQLDRNLTFHKMVAWMIALHSAIHTIAHLFNVEWCVNARVNSDPYSVA
 LSELGDRQNESYLNFAKRIKNPEGGLYLAVTLLAGITGVVITLCLILIIITSSTKIRRYSYFEVFWYTHH
 LFVIFFIGLAIHGAERIVRGQTAEVLAVHNITVCEQKISEWGIKECPIQFAGNPPMTWKWIVGPMFLY
 LCERLVRWFWSQQKVVIKVVTHPFKTIELQMKKGFKMEVGQYIFVKCPKVSLEWHPFTLTSAPEDF
 FSIHIRIVGDWTEGLFNACGCDKQEFQDAWKLPKIAVDGPFGTASEDVFVSYEVVMLVGAGIGVTPFASIL
 KSVWYKYCANNATNLKLLKIFWYLCRDTHAFEFWADLLQLLESQMQRNAGFLSYNIYLTGWDESQANH
 FAVHHDEEKDVIITGLKQKTLYGRPNWDNEFKTIAHQPNTRIGVFLCGPEALAEATLSKQISNSSESGPRG
 VHFIFNKENF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6021_e09.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_000397

ORF Size: 1710 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_000397.4](#)

RefSeq Size: 4353 bp

RefSeq ORF: 1713 bp

Locus ID: 1536

UniProt ID: [P04839](#)

Cytogenetics: Xp21.1-p11.4

Domains: Ferric_reduct

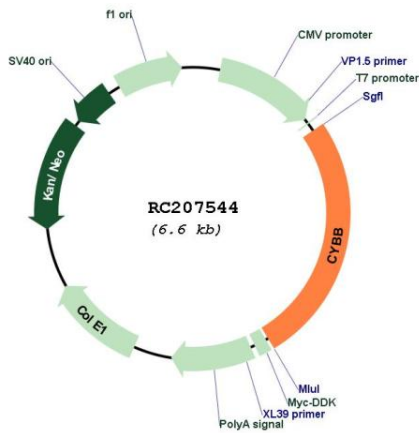
Protein Families: Druggable Genome, Ion Channels: Other, Transmembrane

Protein Pathways: Leukocyte transendothelial migration

MW: 65.3 kDa

Gene Summary: Cytochrome b (-245) is composed of cytochrome b alpha (CYBA) and beta (CYBB) chain. It has been proposed as a primary component of the microbicidal oxidase system of phagocytes. CYBB deficiency is one of five described biochemical defects associated with chronic granulomatous disease (CGD). In this disorder, there is decreased activity of phagocyte NADPH oxidase; neutrophils are able to phagocytize bacteria but cannot kill them in the phagocytic vacuoles. The cause of the killing defect is an inability to increase the cell's respiration and consequent failure to deliver activated oxygen into the phagocytic vacuole. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC207544