

## Product datasheet for **RG202880**

### PCBD1 (NM\_000281) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** PCBD1 (NM\_000281) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** PCBD1  
**Synonyms:** DCOH; PCBD; PCD; PHS  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG202880 representing NM\_000281  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGCTGGCAAAGCACACAGGCTGAGCGCTGAGGAGAGGGACCAGCTGCTGCCAAACCTGAGGGCTGTGG  
 GGTGGAATGAGCTGGAAGGCCGTGATGCCATCTCAAGCAGTTTCATTTCAAAGACTTCAACAGGGCCTT  
 TGGTTTCATGACAAGAGTGGCCCTGCAGGCTGAGAACTGGACCACCATCCTGAATGGTTTAACTGTAC  
 AACAAAGTCCACATCACGCTGAGCACCCATGAGTGTGCCGGCCTTCAGAACGGGACATAAACCTGGCCA  
 GCTTCATCGAACAAAGTAGCAGTGCCATGACA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG202880 representing NM\_000281  
 Red=Cloning site Green=Tags(s)  
 MAGKAHRLSAEERDQLLPNLRVAVGWNELEGRDAIFKQFHFKDFNRAFGMTRVALQAEKLDHHPWFVNVY  
 NKVHITLSTHECAGLSERDINLASFIEQVAVSMT

**TRTRPLE** - GFP Tag - V

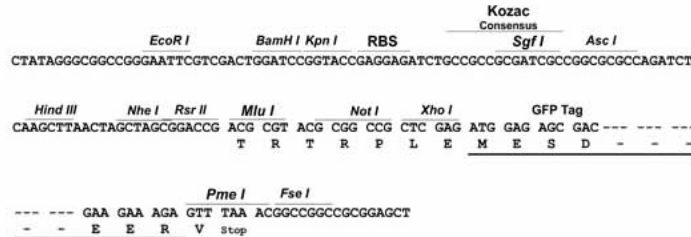
**Restriction Sites:** Sgfl-MluI



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Cloning Scheme:

Cloning sites used for ORF Shutting:



ACCN: NM\_000281

ORF Size: 312 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in *E. coli* are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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\\_000281.4](#)

**RefSeq Size:** 1025 bp

**RefSeq ORF:** 315 bp

**Locus ID:** 5092

**UniProt ID:** [P61457](#)

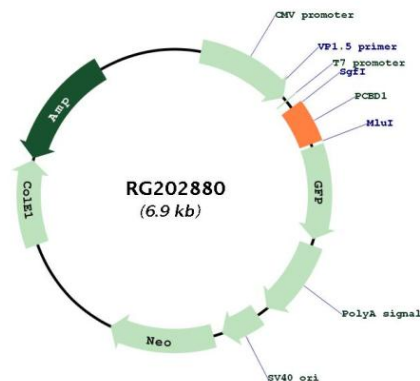
**Cytogenetics:** 10q22.1

**Domains:** Pterin\_4a

**Protein Families:** Druggable Genome

**Gene Summary:** This gene encodes a member of the pterin-4-alpha-carbinolamine dehydratase family. The encoded protein has been identified as a moonlighting protein based on its ability to perform mechanistically distinct functions. The encoded protein functions as both a dehydratase involved in tetrahydrobiopterin biosynthesis, and as a cofactor for HNF1A-dependent transcription. A deficiency of this enzyme leads to hyperphenylalaninemia. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jan 2014]

## Product images:



Circular map for RG202880