

Product datasheet for **RC202880**

PCBD1 (NM_000281) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PCBD1 (NM_000281) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PCBD1
Synonyms:	DCOH; PCBD; PCD; PHS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC202880 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCTGGCAAAGCACACAGGCTGAGCGCTGAGGAGAGGGACCAGCTGCTGCCAAACCTGAGGGCTGTGG
GGTGAATGAGCTGGAAGGCCGTGATGCCATCTCAAGCAGTTTCATTTCAAAGACTTCAACAGGGCCTT
TGGGTTTCATGACAAGAGTGGCCCTGCAGGCTGAGAACTGGACCACCATCCTGAATGGTTTAACGTGTAC
AACAAGGTCCACATCACGCTGAGCACCCATGAGTGTGCCGGCCTTCAGAACGGGACATAAACCTGGCCA
GCTTCATCGAACAAAGTAGCAGTGCCATGACA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:	>RC202880 protein sequence Red=Cloning site Green=Tags(s)
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MAGKAHRLSAEERDQLLPNLRAVGWNELEGRDAIFKQFHFKDFNRAFGMTRVALQAEKLDHHPWFVNVY
NKVHITLSTHECAGLSERDINLASFIEQVAVSMT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6411_g05.zip

Restriction Sites: SgfI-MluI



[View online »](#)

Cloning Scheme:


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 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: 1019 bp

RefSeq ORF: 315 bp

Locus ID: 5092

UniProt ID: [P61457](#)

Cytogenetics: 10q22.1

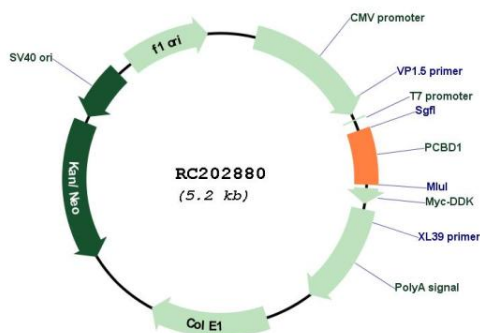
Domains: Pterin_4a

Protein Families: Druggable Genome

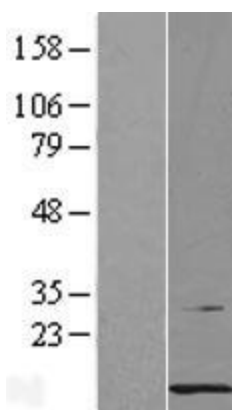
MW: 12 kDa

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]

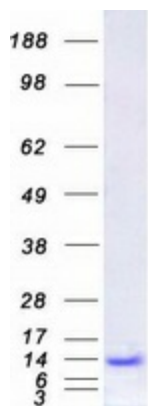
Product images:



Circular map for RC202880



Western blot validation of overexpression lysate (Cat# [LY424824]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202880 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PCBD1 protein (Cat# [TP302880]). The protein was produced from HEK293T cells transfected with PCBD1 cDNA clone (Cat# RC202880) using MegaTran 2.0 (Cat# [TT210002]).