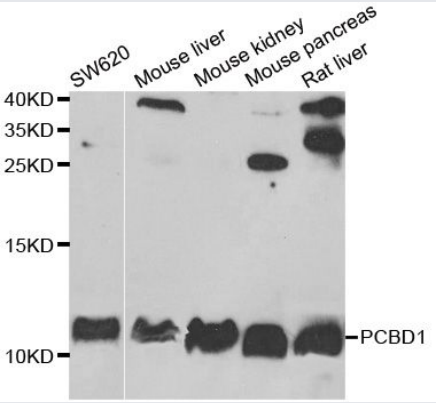
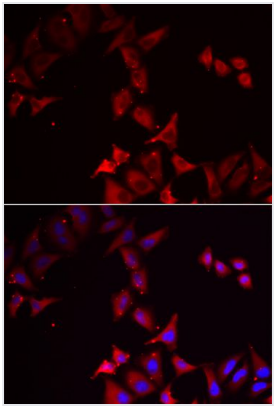
PCBD1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	PCBD1, Polyclonal Antibody
Full Product Name	PCBD1 Polyclonal Antibody
Product Gene Name	anti-PCBD1 antibody
Product Synonym Names	PCD; PHS; DCOH; PCBD
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Purity/Purification	Affinity Purification
Concentration	1mg/ml (lot specific)
Preparation and Storage	Store at -20 degree C (regular) or -80 degree C (long term). Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3.
Molecular Weight	104
OMIM	gene 264070
3D Structure	ModBase 3D Structure for P61457
Species	Human
Immunogen	Recombinant protein of human PCBD1
Calculated Molecular Weight	12kDa
Product Categories/Family for anti-PCBD1 antibody	Polyclonal
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-PCBD1 antibody	Western Blot (WB), Immunohistochemistry (IHC), Immunofluorescence (IF)
Application Notes for anti-PCBD1 antibody	WB: 1:500 - 1:2000 IHC: 1:50 - 1:200
Related Product Information for anti-PCBD1 antibody	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.
Other Notes	Small volumes of anti-PCBD1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for PCBD1 purchase	MBS9127777 is an antibody targeting PCBD1. Also known as PCBD1 Polyclonal Antibody. Reactive in Human, Mouse, Rat. Host: Rabbit.



Western Blot (WB) of anti-PCBD1 antibody
Western blot analysis of extracts of various cell lines, using PCBD1 antibody at 1:1000 dilution.Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) (MBS128200) at 1:10000 dilution.Lysates/proteins: 25ug per lane.Blocking buffer: 3% nonfat dry milk in TBST.Detection: ECL Basic Kit.Exposure time: 90s.



Immunofluorescence (IF) of anti-PCBD1 antibody
Immunofluorescence analysis of U2OS cells using PCBD1 antibody. Blue: DAPI for nuclear staining.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PCBD1. It may not necessarily be applicable to this product.

NCBI GI #	47606444
NCBI GeneID	5092
NCBI Accession #	P61457.2
UniProt Primary Accession #	P61457
UniProt Secondary Accession #	P70519; P80095; Q9D930
UniProt Related Accession #	P61457
NCBI Official Full Name	Pterin-4-alpha-carbinolamine dehydratase
NCBI Official Synonym Full Names	pterin-4 alpha-carbinolamine dehydratase/dimerization cofactor of hepatocyte nuclear factor 1 alpha
NCBI Official Symbol	PCBD1
NCBI Official Synonym Symbols	PCD; PHS; DCOH; PCBD
UniProt Protein Name	Pterin-4-alpha-carbinolamine dehydratase
UniProt Synonym Protein Names	4-alpha-hydroxy-tetrahydropterin dehydratase; Dimerization cofactor of hepatocyte nuclear factor 1-alpha; DCoH; Dimerization cofactor of HNF1; Phenylalanine hydroxylase-stimulating protein; Pterin carbinolamine dehydratase; PCD
Protein Family	Pterin-4-alpha-carbinolamine dehydratase
UniProt Gene Name	PCBD1
UniProt Synonym Gene Names	DCOH; PCBD; PHS; DCoH; Dimerization cofactor of HNF1; PCD
UniProt Entry Name	PHS_HUMAN
NCBI Protein Information	pterin-4-alpha-carbinolamine dehydratase; dimerizing cofactor for HNF1; 4-alpha-hydroxy-tetrahydropterin dehydratase; phenylalanine hydroxylase-stimulating protein; 6-pyruvoyl-tetrahydropterin synthase/dimerization cofactor of hepatocyte nuclear factor 1 alpha (TCF1)

UniProt Comments for PCBD1	PCBD1: Involved in tetrahydrobiopterin biosynthesis. Seems to both prevent the formation of 7-pterins and accelerate the formation of quinonoid-BH2. Coactivator for HNF1A-dependent transcription. Regulates the dimerization of homeodomain protein HNF1A and enhances its transcriptional activity. Defects in PCBD1 are the cause of BH4-deficient hyperphenylalaninemia type D (HPABH4D); also known as hyperphenylalaninemia with primapterinuria. HPABH4D is characterized by the excretion of 7-substituted pterins in the urine of affected patients. Belongs to the pterin-4-alpha-carbinolamine dehydratase family. Protein type: Transcription, coactivator/corepressor; Oxidoreductase; Lyase; EC 4.2.1.96 Chromosomal Location of Human Ortholog: 10q22 Cellular Component: nucleoplasm; cytoplasm; cytosol Molecular Function: identical protein binding; protein binding; 4-alpha-hydroxytetrahydrobiopterin dehydratase activity; transcription coactivator activity; phenylalanine 4-monooxygenase activity Biological Process: L-phenylalanine catabolic process; tetrahydrobiopterin biosynthetic process; transcription, DNA-dependent; protein heterooligomerization; regulation of protein homodimerization activity; positive regulation of transcription, DNA-dependent; protein homotetramerization Disease: Hyperphenylalaninemia, Bh4-deficient, D
Research Articles on PCBD1	**1.** We provide the first genetic evidence that PCBD1 mutations can cause early-onset nonautoimmune diabetes with features similar to dominantly inherited HNF1A-diabetes.
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