Data Sheet (Cat.No.TMPY-03507)

TargetMol

PPC-DC Protein, Human, Recombinant (E. coli, His)

General Information

Synonyms:	coaC;MDS018;PPC-DC;phosphopantothenoylcysteine decarboxylase
Protein Construction:	A DNA sequence encoding the mature form of human PPCDC (AAH14409.1) (Met1-Ser204) was expressed with a polyhistidine tag at the N-terminus. Predicted N terminal: His
Species:	Human
Expression Host:	E. coli
Accession:	AAH14409.1
Molecular Weight:	24.3 kDa (predicted); 24 kDa (reducing conditions)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 95 % as determined by SDS-PAGE
Endotoxin:	Please contact us for more information.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, 15% Glycerol, pH 8.0.Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

PPC-DC, also known as PPCDC, belongs to the HFCD (homo oligomeric flavin containing Cys decarboxylase) superfamily which takes a part in the biosynthesis of coenzyme A (CoA) from pantothenate (Vitamin B). Biosynthesis of coenzyme A (CoA) from pantothenic acid (vitamin B5) is an essential universal pathway in prokaryotes and eukaryotes. This process include several steps: the phosphorylation of pantothenate, the conversion of 4'-hosphopantothenate to 4''-phosphopantetheine, the adenylation by phosphopantetheine

adenylyltransferase to form dephospho-CoA and the phosphorylation by dephospho-CoA kinase to form CoA. PPC-DC, one of the last enzymes in this pathway, converts phosphopantothenoylcysteine to 4-prime-phosphopantetheine.

Reference

ody MC. et al., 2006, Nature. 440: 671-5.
ZOta T. et al., 2004, Nat Genet. 36: 40-5.
Clark HF. et al., 2003, Genome Res. 13: 2265-70.