Recombinant Rat PEPCK-C protein (His tag)

Catalog Number:PDER100033

Note: Centrifuge before opening to ensure complete recovery of vial contents.

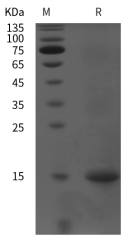
Description

Synonyms	cytosolic [GTP];PCK1;PEP carboxykinase;PEPCK-C;PEPCKC;Phosphopyruvate carboxylase
Species	Rat
Expression Host	E.coli
Sequence	Met 1-Lys 135
Accession	P07379
Calculated Molecular Weight	14.7 kDa
Observed molecular weight	15 kDa
Tag	N-His

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	Please contact us for more information.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 95 % as determined by reducing SDS-PAGE.

Background

PCK1 (Phosphoenolpyruvate carboxykinase 1; also PEPCK-C [cytosolic]) is a monomeric, 67-68 kDa member of the PEP carboxykinase family of enzymes. It is expressed in postnatal cells such as mammary epithelium, white and brown adipocytes, skeletal muscle cells and hepatocytes. PCK1 has multiple functions, some of which are cell-specific. In particular, PCK1 has both cataplerotic (Greek: to fill down, or remove) and anaplerotic (to fill up, or replace) activity, where it removes and replaces elements of the TCA cycle. It is also gluconeogenic, and promotes glucose formation via PEP generation. Finally, it is glyceroneogenic, creating glycerol-3-phosphate that is used to reesterify and store just-released free fatty acids in adipocytes. It contains one kinase domain (aa 27-615), and two potential acetylation sites at

Lys70 and 71. There are four potential splice forms. Two have alternative start sites at Met460 and Met315, while two others show a deletion of aa 34-546, plus a three aa substitution for aa 85-204, respectively.

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