

Active Recombinant Human PC protein, His-tagged

Cat. No. PC-760H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active Recombinant Human PC protein(P11498)(36-486 aa), fused with N-terminal His tag, was expressed in E.coli.
Species	Human
Source	E.coli
ProteinLength	36-486 aa
Form	PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Bio-activity	Pyruvate carboxylase (PC) is a mitochondrial, biotin-containing enzyme catalyzing the ATP-dependent synthesis of oxaloacetate from pyruvate and bicarbonate, with a critical anaplerotic role in sustaining the brain metabolism. Pyruvate carboxylase (PC) deficiency is a rare autosomal recessive mitochondrial neurometabolic disorder of energy deficit resulting in high morbidity and mortality, with limited therapeutic options. Besides, PCK2 has been identified as an interactor of PC, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human PC and recombinant human PCK2. Briefly, biotin-linked PC were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 ul were then transferred to PCK2-coated microtiter wells and incubated for 1h at 37°C. Wells were washed with PBST 3 times and incubation with Streptavidin-HRP for 30 min, then wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50 µstop solution to the wells and read

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at 450 nm immediately. The binding activity of PC and PCK2 was shown, the EC50 for this effect is 0.056 ug/mL.

Molecular Mass	53.6kDa
Endotoxin	<1.0EU per 1µg (determined by the LAL method).
Purity	> 90%
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Store at -20°C for 12 months. Aliquot and store at -80°C for 12 months.
Reconstitution	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

GENE INFORMATION

Gene Name	PC pyruvate carboxylase [Homo sapiens]
Official Symbol	PC
Synonyms	PC; pyruvate carboxylase; pyruvate carboxylase, mitochondrial; PCB; pyruvic carboxylase;
Gene ID	5091
mRNA Refseq	NM_000920
Protein Refseq	NP_000911
MIM	608786

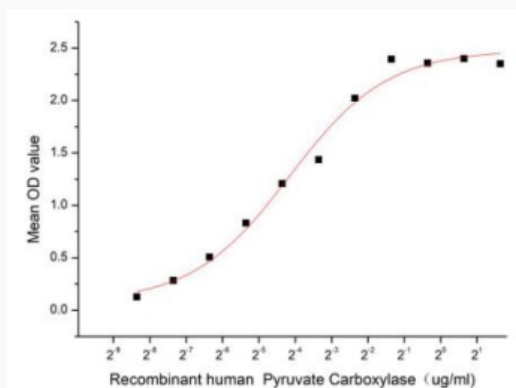
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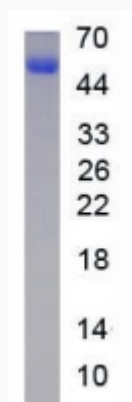
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UniProt ID P11498

Activity



SDS-PAGE



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