Active Recombinant Human QPCT protein, His-tagged

Cat. No. QPCT-714H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active Recombinant Human QPCT protein(Q16769)(29-361 aa), fused with N-terminal His tag, was expressed in E.coli.
Species	Human
Source	E.coli
ProteinLength	29-361 aa
Form	PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Bio-activity	Glutaminyl Peptide Cyclotransferase (QPCT), also known as Glutaminyl Cyclase, is an enzyme responsible for the biosynthesis of pyroglutamyl peptides. QPCT is present in the pituitary and adrenal glands, where it is important for the generation of the N terminal pyroglutamyl groups of peptide hormones such as neurotensin and thyrotropin-releasing hormone. Besides, Cathepsin B (CTSB) has been identified as an interactor of QPCT, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human QPCT and recombinant rat CTSB. Briefly, QPCT was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 µl were then transferred to CTSB-coated microtiter wells and incubated for 1h at 37°C. Wells were washed with PBST and incubated for 1h with anti-QPCT pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37°C, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C.

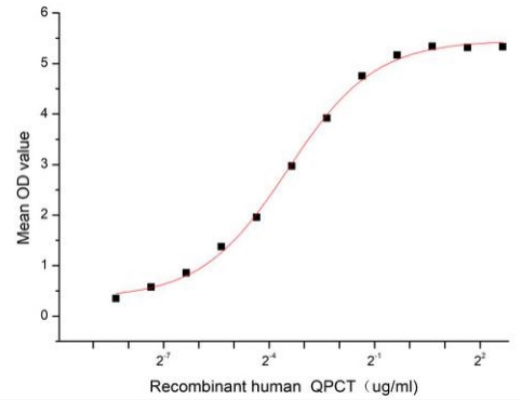
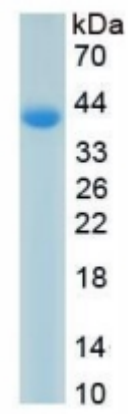
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	Finally, add 50 µ stop solution to the wells and read at 450/630 nm immediately. The binding activity of recombinant human QPCT and recombinant rat CTSB was shown, the EC50 for this effect is 0.09 ug/mL.
Molecular Mass	41.6kDa
Endotoxin	<1.0EU per 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	QPCT glutaminyl-peptide cyclotransferase [Homo sapiens]
Official Symbol	QPCT
Synonyms	QPCT; glutaminyl-peptide cyclotransferase; GCT; glutaminyl cyclase; QC; EC; glutamyl cyclase; glutaminyl-tRNA cyclotransferase; sQC;
Gene ID	25797
mRNA Refseq	NM_012413
Protein Refseq	NP_036545

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MIM	607065
UniProt ID	Q16769
Activity	
SDS-PAGE	

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