

Glutamyl Peptide Cyclotransferase (QPCT) Active Protein | QPCT active protein

Active Glutamyl Peptide Cyclotransferase (QPCT)

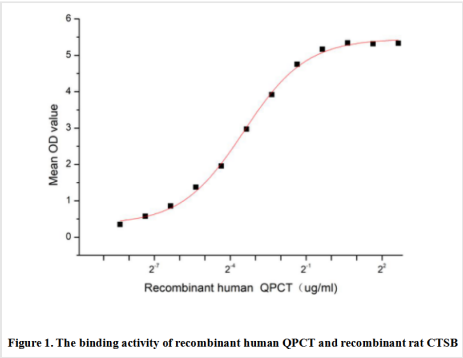
CATALOG # AAA161925	HOST E Coli	APPLICATIONS Activity Assay, Cell Culture
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PRODUCT SYNONYMS

Glutamyl Peptide Cyclotransferase (QPCT); Active Glutamyl Peptide Cyclotransferase (QPCT); Glutamyl Peptide Cyclotransferase; GCT; QC; EC; Glutamyl Cyclase; Glutamyl-tRNA cyclotransferase4; QPCT active protein

PRODUCT SPECIFICATIONS

Host	E Coli
Purity/Purification	Greater than 90% by SDS-PAGE
Form/Format	Freeze-dried powder; PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Sequence	Val29~Leu3 61
Applicable Applications for QPCT active protein	Activity Assay, Cell Culture
Species	Human
Expression System	Prokaryotic expression
Tag	N-terminal His Tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method)
Isoelectric Point	5.7
Research Area	Enzyme & Kinase
Preparation and Storage	Store at 2-8 degree C for one month, -80 degree C for 12 months

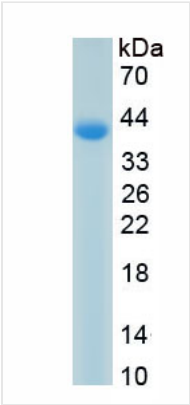


Bioactivity

Glutamyl Peptide Cyclotransferase (QPCT), also known as Glutamyl 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 Nterminal 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 ul were then transferred to CTSB-coated microtiter wells and incubated for 1h at 37 degree 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 degree C, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37 degree C. Finally, add 50 uL 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 in Figure 1, the EC50 for this effect is 0.09 ug/mL.

SDS-PAGE

Figure. SDS-PAGE



ADDITIONAL INFORMATION

Product Categories/Family for QPCT active protein	Active proteins
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NCBI AND UNIPROT INFORMATION

NCBI GI #	6912618
NCBI GeneID	25797
NCBI Accession #	NP_036545.1
NCBI GenBank Nucleotide #	NM_012413.3
UniProt Accession #	Q16769; Q16770; Q3KRG6; Q53TR4
Molecular Weight	35,421 Da
NCBI Official Full Name	glutamyl-peptide cyclotransferase
NCBI Official Synonym Full Names	glutamyl-peptide cyclotransferase
NCBI Official Symbol	QPCT
NCBI Official Synonym Symbols	QC; GCT; sQC
NCBI Protein Information	glutamyl-peptide cyclotransferase
UniProt Protein Name	Glutamyl-peptide cyclotransferase
UniProt Gene Name	QPCT
UniProt Synonym Gene Names	QC; sQC; EC
UniProt Entry Name	QPCT_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/e-coli-active-protein/glutaminy-peptide-cyclotransferase-qpct/161925>