





Recombinant Human Glutaminyl-peptide cyclotransferase (QPCT)

Product Code	CSB-EP019135HU
Relevance	Responsible for the biosynthesis of pyroglutamyl peptides. Has a bias against acidic and tryptophan residues adjacent to the N-terminal glutaminyl residue and a lack of importance of chain length after the second residue. Also catalyzes N-terminal pyroglutamate formation. In vitro, catalyzes pyroglutamate formation of N-terminally truncated form of APP amyloid-beta peptides [Glu-3]-beta-amyloid. May be involved in the N-terminal pyroglutamate formation of several amyloid-related plaque-forming peptides.
Abbreviation	Recombinant Human QPCT protein
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	Q16769
Alias	Glutaminyl cyclase ;QC ;sQCGlutaminyl-tRNA cyclotransferaseGlutamyl cyclase ;EC
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	VSPSASAWPEEKNYHQPAILNSSALRQIAEGTSISEMWQNDLQPLLIERYPGS PGSYAARQHIMQRIQRLQADWVLEIDTFLSQTPYGYRSFSNIISTLNPTAKRHL VLACHYDSKYFSHWNNRVFVGATDSAVPCAMMLELARALDKKLLSLKTVSDS KPDLSLQLIFFDGEEAFLHWSPQDSLYGSRHLAAKMASTPHPPGARGTSQLH GMDLLVLLDLIGAPNPTFPNFFPNSARWFERLQAIEHELHELGLLKDHSLEGRY FQNYSYGGVIQDDHIPFLRRGVPVLHLIPSPFPEVWHTMDDNEENLDESTIDNL NKILQVFVLEYLHL
Research Area	Neuroscience
Source	E.coli
Target Names	QPCT
Expression Region	29-361aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-SUMO-tagged
Mol. Weight	53.9kDa
Protein Length	Full Length of Mature Protein

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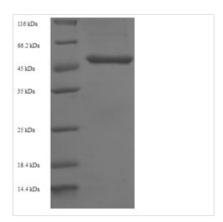


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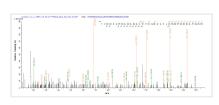




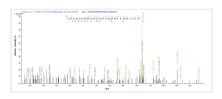
Image



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.



Based on the SEQUEST from database of E.coli host and target protein, the LC-MS/MS Analysis result of CSB-EP019135HU could indicate that this peptide derived from E.coli-expressed Homo sapiens (Human) QPCT.



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Description

Full-length of mature human glutaminyl-peptide acyltransferase(QPCT) cDNA carrying an N-terminal 6xHis-SUMO-tag was expressed in E.coli. The resulting protein is the recombinant fusion protein consisting of 29-361aa of human QPCT. It was validated by LC-MS/MS analysis. The SDS-PAGE showed an about 47-51 kDa molecular mass of this protein and determined the purity of over 90%. In-stock QPCT proteins are offered now. This recombinant QPCT protein may be used to produce specific antibodies or in the studies of neuroscience.

QPCT catalyzes the conversion of the N-terminal glutamate of proteins to pyroglutamate. This process makes the protein more resistant to protease degradation, more susceptible to hydrophobic interactions, aggregation, and neurotoxic. Ziyan Wang etc. demonstrated that QPCT knockdown led to the down-regulation of prophenoloxidase and crustin antimicrobial peptide. And QPCT may contribute to the replication of the White spot syndrome virus (WSSV).

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.



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