

# Recombinant Human Glutaminyl cyclase/QPCT Protein (His Tag)

Catalog Number:PKSH030564



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

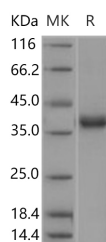
## Description

<b>Synonyms</b>	GCT;QC;sQC
<b>Species</b>	Human
<b>Expression Host</b>	Baculovirus-Insect Cells
<b>Sequence</b>	Ala33-Leu361
<b>Accession</b>	Q16769-1
<b>Calculated Molecular Weight</b>	39.7 kDa
<b>Observed molecular weight</b>	38 kDa
<b>Tag</b>	N-His

## Properties

<b>Purity</b>	> 95 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from sterile 20mM Tris, 500mM NaCl, pH 7.4, 10% glycerol 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.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

## Data



> 95 % as determined by reducing SDS-PAGE.

## Background

Glutaminyl cyclase, also known as QPCT, can promote the N-terminal cyclization reaction of N-terminal pyroglutamate(pGlu). The pGlu formation from its glutaminyl precursor is required in the maturation of numerous bioactive peptides, while the aberrant formation of pGlu may be related to several pathological processes, such as osteoporosis and amyloidotic diseases. Glutaminyl cyclase's structure reveals an alpha/beta scaffold akin to that of two-zinc exopeptidases but with several insertions and deletions, particularly in the active-site region. Glutaminyl cyclase's amino acid sequence of this enzyme is 86% identical to that of bovine glutaminyl cyclase. It is responsible for the presence of pyroglutamyl residues in many neuroendocrine peptides.

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