

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

Catalog No. PKSH030564

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

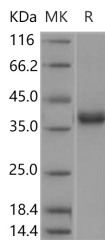
### Description

<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
<b>Bioactivity</b>	Not validated for activity

### 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

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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.