Recombinant Protein Technical Manual

Recombinant Human Glutaminyl cyclase/QPCT Protein (His Tag)

RPES4196

Product Data:

Product SKU: RPES4196

Size: 10µg

Species: Human

Expression host: Baculovirus-Insect Cells

Uniprot: Q16769

Protein Information:

Molecular Mass:	39.7 kDa
AP Molecular Mass:	38 kDa
Tag:	N-His
Bio-activity:	
Purity:	> 95 % as determined by reducing SDS-PAGE.
Endotoxin:	< 1.0 EU per µg as determined by the LAL method.
Storage:	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℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping:	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation:	Lyophilized from sterile 20mM Tris, 500mM NaCl, pH 7.4, 10% gly
Reconstitution:	Please refer to the printed manual for detailed information.
Application:	
Synonyms:	GCT;QC;sQC

Immunogen Information:

Sequence: Ala33-Leu361

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.