

GIP Protein, Human, Recombinant (His)

General Information

Synonyms:	Incretin;GIP
Protein Construction:	Glu22-Gln93
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P09681
Molecular Weight:	9.2 kDa (predicted). Due to glycosylation, the protein migrates to 15-25 kDa based on Tris-Bis PAGE result.

QC Testing

Biological Activity:	Immobilized Human GIP, His Tag at 0.5µg/ml (100µl/Well) on the plate. Dose response curve for Anti-GIP Antibody, hFc Tag with the EC50 of 17.3ng/ml determined by ELISA.
Purity:	> 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC
Endotoxin:	< 1.0 EU/µg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 µm filter, containing PBS (pH 7.4). Typically, 8% trehalose is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 µg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

The potential application of glucose-dependent insulinotropic polypeptide (gastric inhibitory polypeptide, GIP) in the management of obesity and type 2 diabetes has been controversial. Initial interest in the therapeutic use of GIP was dampened by evidence that its insulinotropic activity was reduced in type 2 diabetes and by reports that it increased glucagon secretion and adipose deposition in non-diabetic individuals.

Reference

Bailey CJ. GIP analogues and the treatment of obesity-diabetes. Peptides. 2020 Mar;125:170202. doi: 10.1016/j.peptides.2019.170202. Epub 2019 Nov 19. PMID: 31756366.

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