

**Product Name:** [Pro<sup>3</sup>]-GIP (Mouse)

**Catalog No.:** 5838

**Batch No.:** 8

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>225</sub>H<sub>342</sub>N<sub>62</sub>O<sub>64</sub>S  
**Batch Molecular Weight:** 4971.62  
**Physical Appearance:** White lyophilised solid  
**Counter Ion:** TFA  
**Solubility:** Soluble to 2 mg/ml in water  
**Storage:** Store at -20°C  
**Peptide Sequence:** Tyr-Ala-Pro-Gly-Thr-Phe-Ile-Ser-Asp-Tyr-Ser-Ile-Ala-Met-Asp-Lys-Ile-Arg-Gln-Gln-Asp-Phe-Val-Asn-Trp-Leu-Leu-Ala-Gln-Arg-Gly-Lys-Lys-Ser-Asp-Trp-Lys-His-Asn-Ile-Thr-Gln

**2. ANALYTICAL DATA**

**HPLC:** Shows 96.8% purity  
**Mass Spectrum:** Consistent with structure

**3. AMINO ACID ANALYSIS DATA**

Amino Acid Theoretical Actual			Amino Acid Theoretical Actual		
Ala	3.00	2.95	Lys	4.00	4.00
Arg	2.00	2.05	Met	1.00	1.00
Asx	6.00	4.90	Phe	2.00	1.99
Cys			Pro	1.00	1.02
Glx	4.00	4.01	Ser	3.00	2.93
Gly	2.00	2.02	Thr	2.00	1.88
His	1.00	0.97	Trp	2.00	Not Detected
Ile	4.00	3.95	Tyr	2.00	2.09
Leu	2.00	2.01	Val	1.00	0.99

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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**Description:**

[Pro<sup>3</sup>]-GIP (Mouse) is a GIP receptor antagonist (IC<sub>50</sub> = 2.6µM). Inhibits GIP-stimulated insulin release from pancreatic β cells in vitro. In ob/ob mice, blocks the effects of GIP on insulin release and plasma glucose levels. Also improves intraperitoneal glucose tolerance, insulin sensitivity, and glucose response to feeding in ob/ob mice.

**Physical and Chemical Properties:**

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Batch Molecular Weight: 4971.62

Physical Appearance: White lyophilised solid

**Peptide Sequence:**

Tyr-Ala-Pro-Gly-Thr-Phe-Ile-Ser-Asp-Tyr-Ser-Ile-Ala-Met-Asp-Lys-Ile-Arg-Gln-Gln-Asp-Phe-Val-Asn-Trp-Leu-Leu-Ala-Gln-Arg-Gly-Lys-Lys-Ser-Asp-Trp-Lys-His-Asn-Ile-Thr-Gln

**Storage:** Store at -20°C

**Solubility & Usage Info:**

Soluble to 2 mg/ml in water

This product is supplied in lyophilized form. It may appear as a solid, gel or film and be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

**Counter Ion:** TFA

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Peptides in solution are much less stable than in lyophilized form. This is especially true for peptides whose sequences contain amino acids such as Cys, Met, Trp, Asn, Gln, and N-terminal Glu.

Therefore we recommend storing peptides in solution for as short a time as possible. Avoid repeated freeze thaw cycles by dividing the peptide solution into aliquots and storing the aliquots at -20°C. Any portion of an aliquot unused after thawing should be discarded.

Peptides stored in solution can occasionally be susceptible to bacterial degradation. We recommend using sterile solutions or passing the peptide solution through a 0.2 µm filter to remove potential bacterial contamination whenever possible.

**References:**

**Irwin *et al*** (2007) Early administration of the glucose-dependent Insotropic polypeptide receptor antagonist (Pro3)GIP prevents the development of diabetes and related metabolic abnormalities associated with genetically inherited obesity in ob/ob mice. *Diabetologia* **50** 1532. PMID: 17486314.

**Gault *et al*** (2002) Characterization of the cellular and metabolic effects of a novel enzyme-resistant antagonist of glucose-dependent Insotropic polypeptide. *Biochem.Biophys.Res.Commun.* **290** 1420. PMID: 11820780.

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**bio-techne.com**

info@bio-techne.com

techsupport@bio-techne.com

**North America**

Tel: (800) 343 7475

**China**

info.cn@bio-techne.com

Tel: +86 (21) 52380373

**Europe Middle East Africa**

Tel: +44 (0)1235 529449

**Rest of World**

www.tocris.com/distributors

Tel:+1 612 379 2956