

Certificate of Analysis

Product Name: GRF (ovine)

Catalog No.: 1187

Batch No.: 2

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	C ₂₂₁ H ₃₆₈ N ₇₂ O ₆₆ S
Batch Molecular Weight:	5123
Physical Appearance:	White lyophilised solid
Net Peptide Content:	80%
Storage:	Desiccate at -20°C
Peptide Sequence:	Tyr-Ala-Asp-Ala-Ile-Phe-Thr-Asn-Ser-Tyr-Arg-Lys-Ile-Leu-Gly-Gln-Leu-Ser-Ala-Arg-Lys-Leu-Leu-Gln-Asp-Ile-Met-Asn-Arg-Gln-Gln-Gly-Glu-Arg-Asn-Gln-Glu-Gln-Gly-Ala-Lys-Val-Arg-Leu-NH ₂

2. ANALYTICAL DATA

HPLC:	Shows >95% purity
Mass Spectrum:	Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical Actual			Amino Acid Theoretical Actual		
Ala	4.00	4.13	Lys	3.00	3.04
Arg	5.00	4.97	Met	1.00	1.02
Asx	5.00	4.80	Phe	1.00	0.98
Cys			Pro		
Glx	8.00	8.04	Ser	2.00	1.97
Gly	3.00	3.00	Thr	1.00	1.03
His			Trp		
Ile	3.00	2.87	Tyr	2.00	1.95
Leu	5.00	4.93	Val	1.00	1.00

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

Product Name: GRF (ovine)**Catalog No.:** 1187**Batch No.:** 2**Description:**

Hypothalamic peptide which stimulates the release of growth hormone.

Physical and Chemical Properties:

Batch Molecular Formula: C₂₂₁H₃₆₈N₇₂O₆₆S

Batch Molecular Weight: 5123

Physical Appearance: White lyophilised solid

Peptide Sequence:

Tyr-Ala-Asp-Ala-Ile-Phe-Thr-Asn-Ser-Tyr-
Arg-Lys-Ile-Leu-Gly-Gln-Leu-Ser-Ala-Arg-
Lys-Leu-Leu-Gln-Asp-Ile-Met-Asn-Arg-Gln-
Gln-Gly-Glu-Arg-Asn-Gln-Glu-Gln-Gly-Ala-
Lys-Val-Arg-Leu-NH₂

Storage: Desiccate at -20°C**Solubility & Usage Info:**

Most peptides are soluble in distilled water. If the peptide does not completely dissolve addition of 0.1M acetic acid (those containing Arg, Lys, His) or 0.1M ammonia (those containing Asp, Glu) may help. Occasionally 10% DMSO or DMF may be required for extremely insoluble peptides. In addition to these measures sonification may also be helpful.

Net Peptide Content: 80% (Remaining weight made up of counterions and residual water).**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:

Campbell et al (1991) GRF analogs and fragments: correlation between receptor binding, activity and structure. *Peptides* **12** 569. PMID: 1656403.

Campbell and Scanes (1992) Evolution of the growth hormone-releasing factor (GRF) family of peptides. *Growth Regul.* **2** 175. PMID: 1290954.

Laburthe et al (1996) Receptors for VIP, PACAP, secretin, GRF, glucagon, GLP-1, and other members of their new family of G protein-linked receptors: structure-function relationship with special reference to the human VIP-1 receptor. *Ann.N.Y.Acad.Sci.* **805** 94. PMID: 8993396.

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