

# Certificate of Analysis

**Product Name:** GR 231118

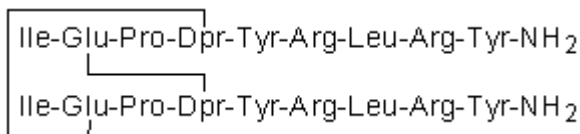
**Catalog No.:** 1486

**Batch No.:** 3

CAS Number: 158859-98-4

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>110</sub>H<sub>170</sub>N<sub>34</sub>O<sub>24</sub>  
**Batch Molecular Weight:** 2352.77  
**Physical Appearance:** White lyophilised solid  
**Net Peptide Content:** 69%  
**Counter Ion:** TFA  
**Storage:** Desiccate at -20°C  
**Peptide Sequence:**



## 2. ANALYTICAL DATA

**HPLC:** Shows 96% purity  
**Mass Spectrum:** Consistent with structure

## 3. AMINO ACID ANALYSIS DATA

Amino Acid		Theoretical	Actual	Amino Acid		Theoretical	Actual
Ala				Lys			
Arg	4.00	4.00		Met			
Asx				Phe			
Cys				Pro	2.00	1.99	
Glx	2.00	1.99		Ser			
Gly				Thr			
His				Trp			
Ile	2.00	1.96		Tyr	4.00	4.03	
Leu	2.00	2.05		Val			

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

**Product Name:** GR 231118

**Catalog No.:** 1486

**Batch No.:** 3

CAS Number: 158859-98-4

**Description:**

Potent neuropeptide Y (NPY) Y<sub>1</sub> receptor antagonist (pA<sub>2</sub> = 10 and 10.5 at rY<sub>1</sub> and hY<sub>1</sub>, receptors respectively). Also a potent and selective NPY Y<sub>4</sub> receptor agonist (pEC<sub>50</sub> values are 6.0, 8.6 and 6.1 for rY<sub>2</sub>, hY<sub>4</sub> and rY<sub>5</sub> receptors respectively). Suppresses food intake in rats in vivo. Also has affinity for neuropeptide FF (NPFF) receptors in vitro (K<sub>i</sub> = 43-73 nM).

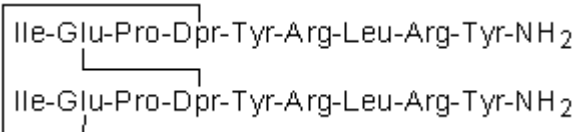
**Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>110</sub>H<sub>170</sub>N<sub>34</sub>O<sub>24</sub>

Batch Molecular Weight: 2352.77

Physical Appearance: White lyophilised solid

**Peptide Sequence:**



**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.

This product is supplied as a lyophilized solid and may 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.

**Net Peptide Content:** 69% (Remaining weight made up of counterions and residual water).

**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:**

**Mollereau et al** (2001) Agonist and antagonist activities on human NPFF<sub>2</sub> receptors of the NPY ligands GR231118 and BIBP3226. *Br.J.Pharmacol.* **133** 1. PMID: 11325787.

**Ishihara et al** (1998) A potent neuropeptide Y antagonist, 1229U91, suppressed spontaneous food intake in Zucker fatty rats. *Am.J.Physiol.* **274** R1500. PMID: 9612420.

**Parker et al** (1998) GR231118 (1229U91) and other analogues of the C-terminus of neuropeptide Y are potent neuropeptide Y Y<sub>1</sub> receptor antagonists and neuropeptide Y Y<sub>4</sub> receptor agonists. *Eur.J.Pharmacol.* **349** 97. PMID: 9669502.

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

**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