

Certificate of Analysis

www.tocris.com

Product Name: IRL-1620
CAS Number: 142569-99-1

Catalog No.: 1196 **Batch No.:** 13

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₈₆H₁₁₇N₁₇O₂₇
Batch Molecular Weight: 1820
Physical Appearance: White lyophilised solid
Net Peptide Content: 90%
Counter Ion: TFA
Solubility: Soluble to 0.70 mg/ml in water
Storage: Store at -20°C
Peptide Sequence: Suc-Asp-Glu-Glu-Ala-Val-Tyr-Phe-Ala-His-
 Leu-Asp-Ile-Ile-Trp

2. ANALYTICAL DATA

HPLC: Shows 98.9% purity
Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical		Actual		Amino Acid Theoretical		Actual	
Ala	2.00	1.89	Lys				
Arg			Met				
Asx	2.00	2.00	Phe	1.00	0.93		
Cys			Pro				
Glx	2.00	2.05	Ser				
Gly			Thr				
His	1.00	0.94	Trp	1.00	Detected		
Ile	2.00	1.47	Tyr	1.00	1.00		
Leu	1.00	0.97	Val	1.00	1.04		

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

Product Name: IRL-1620

Catalog No.: 1196

13

CAS Number: 142569-99-1

Description:

IRL-1620 is a potent and highly selective ET_B endothelin receptor agonist (K_i values are 0.016 and 1900 nM at ET_B and ET_A receptors respectively). Discriminates two subpopulations of ET_B receptors. IRL-1620 prevents oxidative stress and cognitive impairment induced by Aβ in normal and diabetic rats; in a rat brain ischemia model it is neuroprotective, increases angiogenesis and neurogenesis, and promotes the recovery of neuronal function. Also promotes neural progenitor cell differentiation and maturation in vivo and in vitro.

Physical and Chemical Properties:

Batch Molecular Formula: C₈₆H₁₁₇N₁₇O₂₇

Batch Molecular Weight: 1820

Physical Appearance: White lyophilised solid

Peptide Sequence:

Suc-Asp-Glu-Glu-Ala-Val-Tyr-Phe-Ala-His-
Leu-Asp-Ile-Ile-Trp

Storage: Store at -20°C

Solubility & Usage Info:

Soluble to 0.70 mg/ml in water

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: 90% (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:

Ranjan et al (2020) Sovateltide (IRL-1620) activates neuronal differentiation and prevents mitochondrial dysfunction in adult mammalian brains following stroke. *Sci.Rep.* **10** 12737. PMID: 32728189.

Briyal et al (2015) Stimulation of endothelin B receptors by IRL-1620 decreases the progression of Alzheimer's disease. *Neuroscience* **301** 1. PMID: 26022359.

Mazzoni et al (1999) Suc-[Glu⁹, Ala^{11,15}]-endothelin-1 (8-21), IRL 1620, identifies two populations of ET_B receptors in guinea-pig bronchus. *Br.J.Pharmacol.* **127** 1406. PMID: 10455290.

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