bio-techne
TOCRIS

Print Date: Nov 22nd 2024

Certificate of Analysis

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Product Name: **Nogo-66 (1-40)** **Catalog No.: 1984** **Batch No.: 8**

CAS Number: 475221-20-6

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{206}H_{324}N_{56}O_{65}$

Batch Molecular Weight: 4625.16

Physical Appearance: White lyophilised solid

Counter Ion: TFA

Solubility: Soluble to 1 mg/ml in water

Storage: Store at -20°C

Peptide Sequence: Ac-Arg-Ile-Tyr-Lys-Gly-Val-Ile-Gln-Ala-Ile-Gln-Lys-Ser-Asp-Glu-Gly-His-Pro-Phe-Arg-Ala-Tyr-Leu-Glu-Ser-Glu-Val-Ala-Ile-Ser-Glu-Glu-Leu-Val-Gln-Lys-Tyr-Ser-Asn-Ser-NH_2

2. ANALYTICAL DATA

HPLC: Shows 95.8% purity

Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid	Theoretical	Actual	Amino Acid	Theoretical	Actual
Ala	3.00	2.83	Lys	3.00	3.01
Arg	2.00	1.80	Met		
Asx	2.00	2.06	Phe	1.00	1.03
Cys			Pro	1.00	1.02
Glx	8.00	8.13	Ser	5.00	4.95
Gly	2.00	1.91	Thr		
His	1.00	0.96	Trp		
Ile	4.00	3.54	Tyr	3.00	3.01
Leu	2.00	2.08	Val	3.00	2.76

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Product Name: **Nogo-66 (1-40)** **Catalog No.: 1984** **8**

CAS Number: 475221-20-6

Description:

Nogo-66 (1-40) is a peptide fragment corresponding to residues 1 - 40 of Nogo-66, the domain of the myelin protein Nogo that inhibits axonal outgrowth. Acts as a competitive antagonist at the Nogo-66 receptor (NgR); blocks Nogo-66- and CNS myelin-induced inhibition of axonal growth, but does not reduce myelin-associated glycoprotein (MAG) inhibition of neurite outgrowth in vitro. Promotes regeneration of hemisected spinal axons and locomotor recovery following spinal injury in vivo.

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Ac-Arg-Ile-Tyr-Lys-Gly-Val-Ile-Gln-Ala-Ile-Gln-Lys-Ser-Asp-Glu-Gly-His-Pro-Phe-Arg-Ala-Tyr-Leu-Glu-Ser-Glu-Val-Ala-Ile-Ser-Glu-Glu-Leu-Val-Gln-Lys-Tyr-Ser-Asn-Ser-NH_2

Storage: Store at -20°C

Solubility & Usage Info:

Soluble to 1 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 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:

Li and Strittmatter (2003) Delayed systemic Nogo-66 receptor antagonist promotes recovery from spinal cord injury. J.Neurosci. ***23*** 4219. PMID: 12764110.

GrandPre *et al* (2002) Nogo-66 receptor antagonist peptide promotes axonal regeneration. Nature ***417*** 547. PMID: 12037567.

Liu *et al* (2002) Myelin-associated glycoprotein as a functional ligand for the Nogo-66 receptor. Science ***297*** 1190. PMID: 12089450.