

# Certificate of Analysis

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**Product Name:** ELA-11 (human)

**Catalog No.:** 6698

**Batch No.:** 1

CAS Number: 1784687-32-6

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>58</sub>H<sub>90</sub>N<sub>16</sub>O<sub>13</sub>S<sub>2</sub>  
**Batch Molecular Weight:** 1283.57  
**Physical Appearance:** White lyophilised solid  
**Net Peptide Content:** 70%  
**Counter Ion:** TFA  
**Solubility:** Soluble to 2 mg/ml in water  
**Storage:** Store at -20°C  
**Peptide Sequence:** Cys-Met-Pro-Leu-His-Ser-Arg-Val-Pro-Phe-Pro

## 2. ANALYTICAL DATA

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

## 3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical			Actual		
Ala			Lys		
Arg	1.00	1.00	Met	1.00	0.99
Asx			Phe	1.00	1.00
Cys			Pro	3.00	2.97
Glx			Ser	1.00	0.99
Gly			Thr		
His	1.00	1.02	Trp		
Ile			Tyr		
Leu	1.00	0.99	Val	1.00	1.04

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

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CAS Number: 1784687-32-6

**Description:**

High affinity apelin receptor agonist ( $K_i = 14$  nM). Bioactive fragment of ELA-32 (Cat. No. 6291). Inhibits forskolin-induced cAMP production and stimulates  $\beta$ -arrestin recruitment in vitro.

**Physical and Chemical Properties:**Batch Molecular Formula:  $C_{58}H_{90}N_{16}O_{13}S_2$ 

Batch Molecular Weight: 1283.57

Physical Appearance: White lyophilised solid

**Peptide Sequence:**

Cys-Met-Pro-Leu-His-Ser-Arg-Val-Pro-Phe-Pro

**Storage:** Store at  $-20^\circ\text{C}$ **Solubility & Usage Info:**

Soluble to 2 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:** 70% (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  $45-60^\circ\text{C}$  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  $-20^\circ\text{C}$ . 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  $0.2\ \mu\text{m}$  filter to remove potential bacterial contamination whenever possible.

**References:**

**Yang et al** (2017) Elabela/Toddler is an endogenous agonist of the apelin APJ receptor in the adult cardiovascular system, and exogenous administration of the peptide compensates for the downregulation of its expression in pulmonary arterial hypertension. *Circulation* **135** 1160. PMID: 28137936.

**Murza et al** (2016) Discovery and structure-activity relationship of a bioactive fragment of ELABELA that modulates vascular and cardiac functions. *J.Med.Chem.* **59** 2962. PMID: 26986036.

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