

Pen peptide certificate of analysis (CoA)

Product:	Bronchogen		
Source:	Hybrid synthesis (recombinant using peptide secretion system and chemical synthesis)		
Intended use:	For stability, viability and activity testing only.		
Order number:		Lot:	25AUG12BRO
Production:	08/2025	Expiry:	08/2027
Formulation:	0.2 µm-filtered solution in 20mM glycine, 200mM Mannitol, 20mM NaH ₂ PO ₄ , pH 7.4; m-cresol 1 mg/ml, glycerol 2 mg/ml (when liquid)		
Protein/peptide concentration per 3 ml cartridge:	30 mg		

<u>Release Testing:</u>	<u>Specification</u>	<u>Lot Result</u>
Purity:	≥ 97%	> 98%
Identity:	Complies	Complies
Sterility:	Sterile	Complies
Endotoxin level:	< 10 EU/mg	< 0.20 EU/mg
Host-cell DNA	≤ 200 ng/mg	Complies (1.1 ng/mg)

Activity was determined using in vitro test.

Purity was determined by HPLC.

Identity was confirmed by end-of-production DNA sequencing and N-terminal protein sequencing.

Sterility test of vial product was performed according to Eur.Pharm. (Inoculation method).

Endotoxin was determined using the gel clot assay according to Eur.Pharm.

Host-cell DNA/RNA was determined using fluorimetric assay (if applicable).

Handling Instructions:

General usage: Open cap, clean the rubber stopper with disinfectant napkin or other cleaning disinfection method / material. Puncture rubber stopper with sterile needle by screwing needle on. Remove the plastic protective cover. Set the index to physician prescribed position, remove the pink plastic cover and let out the air from the cartridge by several button presses into the air. Put on the plastic protective cover back.

Using liquid product: Liquid products are ready to use according to physician recommendations.

Storage and stability: Store material at +2 - +8°C. **Do not freeze!**

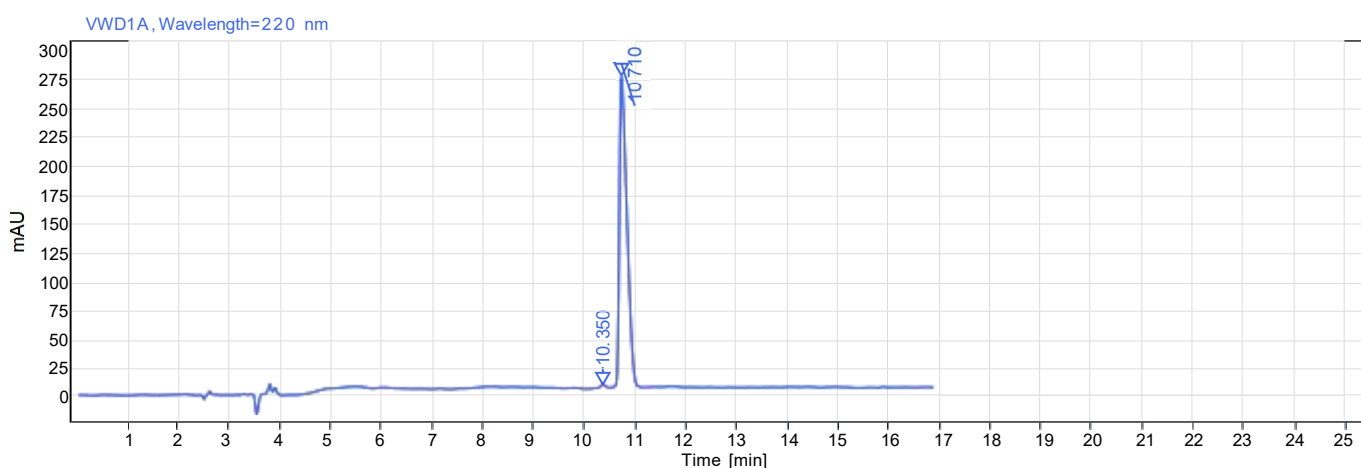
Quality Statement:

This product is manufactured, tested and realized in compliance with the relevant GMP-guidelines. No animal- or human-derived materials were used during manufacturing. USP chapter <1043> “ancillary materials for cell, gene, and tissue-engineered product” has been considered in the design of this product.

Single Injection Report



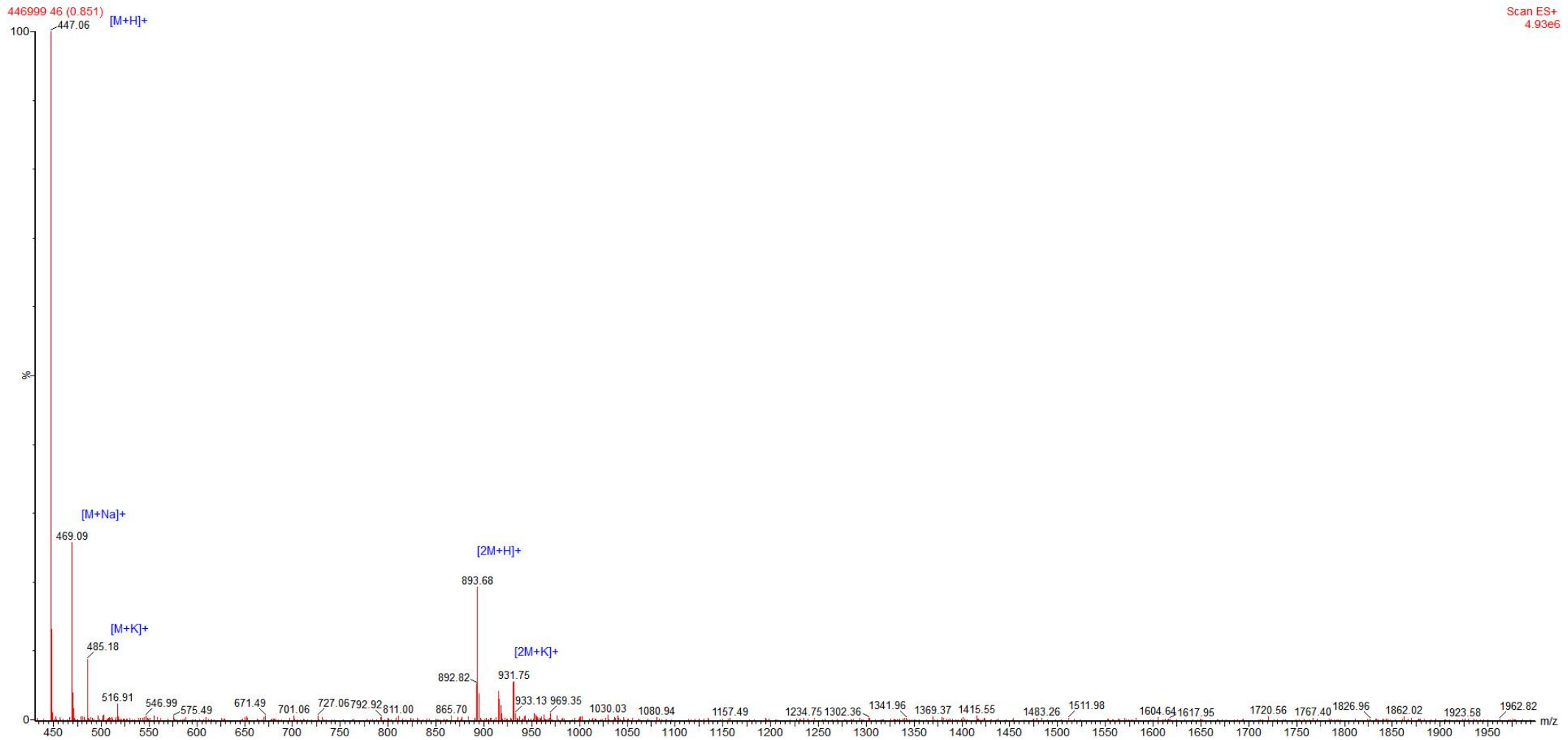
Data file: 2025-08-12 10-38-00+08-00-05.dx
Sequence Name: 20250812
Sample name: Bronchogen
Instrument: Agilent1260
Inj. volume: 3.000
Acq. method: 10-35.amx
Processing method: GC_LC_DefaultMethod.pmx
Manually modified: Manual Integration
Project Name: A
Operator: System
Injection date: 2025-08-12 10:38:42+08:00
Location: P2-F4
Type: Sample
Sample amount: 0.00



Signal: VWD1A, Wavelength=220 nm

RT [min]	Type	Width [min]	Area	Height	Area%	Name
10.350	MM m	0.29	17.40	2.81	0.62	
10.710	MM m	0.57	2799.63	271.30	99.38	
		Sum	2817.02			

MASS SPECTROMETRY REPORT



Sample Description

Analyzed date: 2025-08-12
Analyst: PY
Sample: Bronchogen
M.W.: 446.44
Lot. No.: 20250812

Instrument

Probe:
Nebulizer Gas Flow:
CDL:
CDL Temp.:
Block Temp.:

Waters ZQ2000

ESI
1.5L/min
-20.0v
250 °C
200 °C
Probe Bias: +4.5kv
Detector: 1.5kv
T. Flow: 0.2ml/min
B. Conc.: 50%H2O/50%ACN