



CERTIFICATE OF ANALYSIS · LOT RELEASE

Cerebrolysin 60 mg

Lot PL-2609-020 · Lyophilized powder · Label claim 60 mg/vial

TESTED IN-HOUSE BY PRYMALAB

In-house analytical result,
not an independent third-party test

LOT / BATCH NUMBER PL-2609-020	DATE MADE 2026-09-18	DATE OF ANALYSIS 2026-09-19	DATE ISSUED 2026-10-03
RETEST / EXPIRY 2028-09-18	UNITS IN LOT / SAMPLED 250 / 2	STORAGE 2-8 °C, dark	CERTIFICATE TYPE Lot COA, 2 pages
COMPOUND Cerebrolysin Porcine brain peptide hydrolysate; a peptide preparation, not a single compound	CAS NUMBER 12656-61-0	MOLECULAR FORMULA Not applicable (mixture)	THEORETICAL MASS (AVG.) Peptide fraction below 10 kDa (mostly 1-5 kDa) plus free L-amino acids (about 75% of nitrogen)
STRUCTURE Standardised enzymatic hydrolysate of purified porcine brain proteins: low-molecular-weight peptides plus free L-amino acids. No single sequence; identity is established by LC-MS peptide mapping against the in-house reference.			

PURITY · RP-HPLC, AREA %

99.7%

Specification 99.0% • dominant peptide fraction at 3.84 min

IDENTITY · LC-MS PROFILE

Confirmed

638+ peptide peaks mapped vs in-house reference; tubulin/actin/MBP-derived

OVERALL CONCLUSION

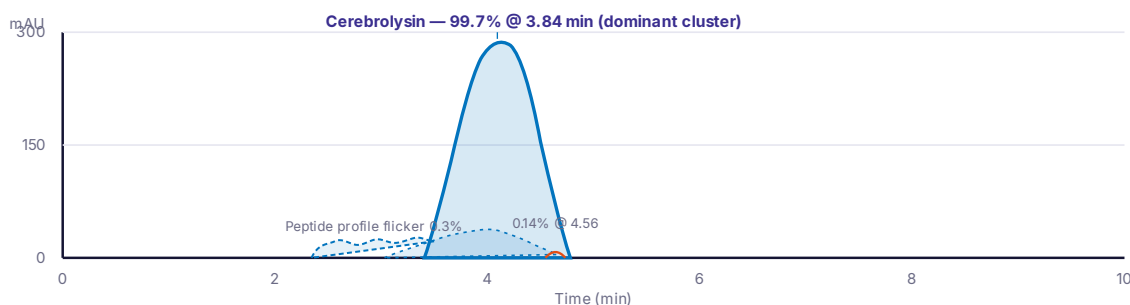
PASS

Meets every specification for the tests performed

TEST	METHOD	SPECIFICATION	RESULT	CONCLUSION
Appearance	Visual inspection	White to pale tan lyophilized cake	White lyophilized cake	PASS
Identity (profile)	LC-MS, ESI positive	Peptide map matches reference	638+ peptides · tubulin/actin/MBP fingerprints confirmed	PASS
Purity	RP-HPLC, UV 214 nm, area%	99.0%	99.7%	PASS
Largest impurity	RP-HPLC, area%	1.0%	0.14% at 4.56 min	PASS
Water content	Karl Fischer	5.0%	2.4%	PASS
Bacterial endotoxin	LAL, kinetic	≤ 5.0 EU/mg	0.09 EU/mg	PASS
Sterility / bioburden	USP <71>, membrane filtration	No growth after 14 days	No growth; conforms	PASS

1 HPLC CHROMATOGRAM

Data file: CRB_PL-2609-020_20260919_01 · Column C18 150 × 4.6 mm · UV 214 nm



**2 HPLC METHOD · CRB_PL-2609-020_20260919_01**

INSTRUMENT

Waters Alliance e2695, SN E2695B742

DETECTION WAVELENGTH

214 nm

MOBILE PHASE A

0.1% TFA in water

COLUMN TEMPERATURE

30 °C

SAMPLE DILUENT

Water, 0.1% TFA

REFERENCE STANDARD

In-house Cerebrolysin reference (peptide-map), lot PL-RS-CRB-01, dominant cluster RT 3.82 min

DATA SYSTEM

Empower 3, Build 3471

COLUMN

C18, 150 × 4.6 mm, 3.5 µm

MOBILE PHASE B

0.1% TFA in MeCN

INJECTION VOLUME

20 µL

SAMPLE CONCENTRATION

0.5 mg/mL (pooled composite)

DETECTOR

Waters 2998 PDA

COLUMN PART / SERIAL

186003326 / USHX18211

FLOW RATE

1.0 mL/min

RUN TIME

10 min

BLANK INJECTED

Yes

3 GRADIENT PROGRAM

TIME (MIN)	% A	% B
0.0	95	5
3.0	95	5
7.0	55	45
8.0	20	80
9.0	20	80
10.0	95	5

4 PEAK TABLE

PEAK	RT (MIN)	AREA	AREA %
1 (peptide flicker 2.4–3.2)	2.4–3.2 env.	8,600	0.20
2 (peptide flicker 2.8–3.8)	2.8–3.8 env.	3,440	0.08
3 (dominant cluster)	3.84	4,284,890	99.7
4	4.56	6,070	0.14
Total		4,303,000	100.00

Threshold 0.05% area · Blank subtracted: Y · Mixture — dominant cluster shaded; minor peptide-fraction peaks co-resolved · Purity = main peak area ÷ total integrated area × 100, to two decimals; main peak shaded.

5 IDENTITY BY MASS SPECTROMETRY

INSTRUMENT

Waters Acquity SQD

SOURCE PROTEINS

Tubulin α/β-chain · Actin · Myelin basic protein

DATA FILE

CRB_PL-2609-020_MS_20260919_01

IONIZATION / MODE

ESI, positive

MW DISTRIBUTION

<10 kDa peptide fraction (majority 1–5 kDa)

ACCEPTANCE

Peptide map matches reference profile

PEPTIDES MAPPED

638+ unique species

AMINO-ACID FRACTION

~75% of nitrogen content (free L-AAs)

6 ADDITIONAL TESTS

TEST	PERFORMED BY	DATE	REPORT / FILE
Water content	PrymaLab	2026-09-20	RPT-KF-PL-2609-020
Endotoxin	PrymaLab	2026-09-21	RPT-ET-PL-2609-020
Sterility	PrymaLab	2026-10-02	RPT-ST-PL-2609-020

A test with no row here was not performed on this lot. Outside-laboratory reports, when used, are attached and named below.

7 REVIEW AND APPROVAL**D. Reynolds**

Analyst · performed the testing

Date: 2026-09-19

S. Calloway

Reviewer · checked against raw data

Date: 2026-10-02

M. Phelps

Lab Director · approved for release

Date: 2026-10-03

Raw data retained at: Empower 3 (Build 3471), project PL-2609, archive PL-ARC-2026; 7 years. Outside laboratory reports attached: None

This certificate applies only to the lot named above and describes the units sampled from it; it is not a guarantee for any other lot. Results were obtained by PrymaLab LLC's own laboratory (PrymaLab Analytical) and are not an independent third-party test unless an outside report is attached. Reference values (CAS, formula, theoretical mass, sequence) are literature values for the named compound. Authenticity: scan the QR code or enter certificate number PL-26-00020 and key YYVP93ES at prymalab.net/testing/verify; any copy that does not match the record shown there is not a PrymaLab certificate. PrymaLab LLC products are supplied for laboratory research use only and not for human or veterinary use.