

Certificate of Analysis

Cerebroprotein Hydrolysate – 5 ml

Product : Cerebroprotein Hydrolysate
Lot number : D3WY1A
Analysis date : 2025-06-26
Method : nanoHPLC-MS Proteomics
Description : light yellow/brown, clear liquid
Extractable Vol. : 5.3 ml
pH : 7.6

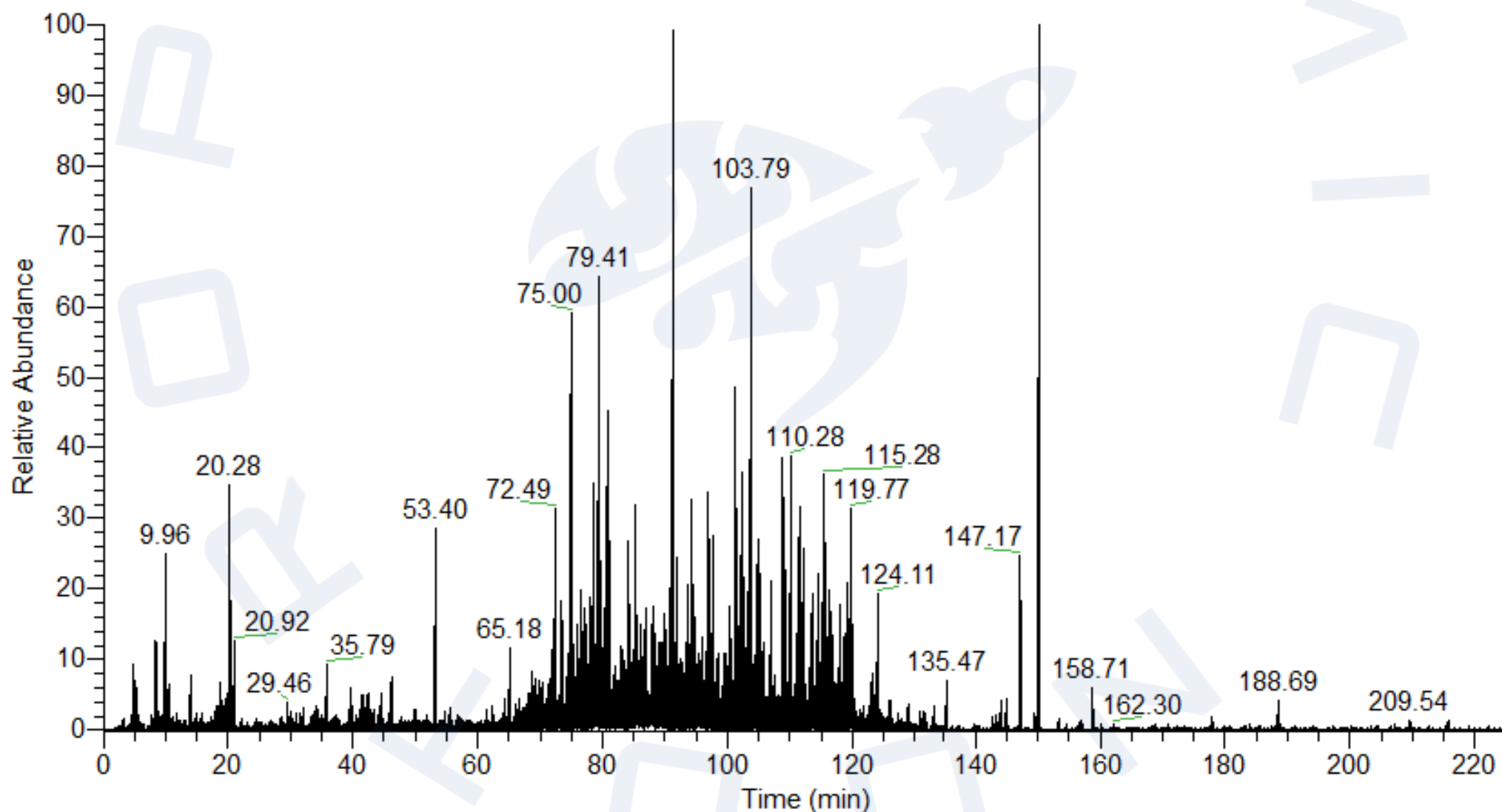
Client : CosmicNootropic

Nano High Performance Liquid Chromatography (HPLC) – Mass Spectrometry (MS)

Cerebrolysin_EverPharma_D3WY1A_180_ce...

06/23/25 16:22:46


RT: 0.00 - 225.03



Cerebroprotein hydrolysate consists of hundreds to thousands of small molecules and peptides generated by the enzymatic hydrolysis of porcine brain tissue.

Peptides and their parent proteins can be identified from complex hydrolysates using proteomics. Proteomics uses the fragmentation function of a mass spectrometer to isolate and fragment molecules as they are separated by the HPLC, in this case a nanoHPLC to increase sensitivity. Fragmentation provides sequence information that can be used by various software to identify peptides. The chromatogram above represents the detected compounds that were fragmented by the mass spec over the course of a 225 minute analysis.

Analysis Performed by
Ken Pendarvis, ChE
Analytical Chemist
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2025-06-30

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Analysis Results

370 proteins and isoforms were identified from a porcine (*Sus scrofa*) database from UniProt.org. Of these 370 proteins, **246 have published evidence of cerebral expression**, confirming the tissue source as porcine cerebrum.

Selected cerebral proteins identified in the analysis include:

Myelin basic protein (A0A286ZKY6_PIG)

20 peptides identified

TPPPSQGK, FSWGAEQGKPGF, FSWGAEQK, HRDTGILDSL, FSWGAEQGKPGFG, HRDTGIL, DTGILDS, NIVTPRTPPPSQG, DTGILDSL, GAEGQKPGFG, KNIVTPR, FSWGAEQGKPG, AQHGRPQDENPV, GLKGAQD, FSWGAEQ, AQHGRPQ, YLASAST, TPPPSQG, SPLPPHA, DTGILDSL

Brain abundant membrane attached signal protein 1 (A0A287ALA0_PIG)

9 peptides identified

AQAPAAPA, AEPEQTEGAEGK, AQAPAAPAEVKPA, SGPAAGGEAPK, AQAPAAPA, TEAPAAPAA, AQAPAAPAEVKPAETPA, KAEGAGTEEEGTPK, AEGAGTEEEGTPK

Glutamate receptor (F1RL86_PIG)

9 peptides identified

GGAGGAG, AGGGGSGA, GAGPPAGA, GAGGPRG, VAAGVAV, GAGAPGG, RGAGGPRG, GAGPPAG, AKGAGPP

Neuron navigator 1 (A0A287A797_PIG)

10 peptides identified

GVNNIVV, AKAQKGSGPVPPAK, GGGGMAK, LVLILDDL, PGGTPGT, VPGGPPA, EVSELRSELW, GPAGGAK, ASSASST, KGGPAGG

Neurofilament medium chain (A0A5G2QW19_PIG)

6 peptides identified

GEQKEEVEKVEEEK, TKVEAPK, KEDIAINGEVEGK, SPVEEVKPK, VEGEGGKEEGGL, GVVTNGL

Neuronal tyrosine phosphorylated phosphoinositide-3-kinase adaptor 1 (I3LQS1_PIG)

7 peptides identified

SGGGLTG, PAGPGAG, GCGIGAP, LLPGPPK, GGGGGGI, AAAAGLK, PGGGGGG

Brain enriched guanylate kinase associated (A0A287AKD4_PIG)

5 peptides identified

FPAPSVS, QEPLSGAAGPEK, SHLLEAK, GAAGPEK, AGGSGLS

Phosphatidylinositol 3,4,5-trisphosphate 3-phosphatase (A0A5G2QK45_PIG)

5 peptides identified

GGEAAAA, AGNAGELV, AGNAGEL, GASATAK, AAAAAPG

Porcine species source – CONFIRMED

Cerebrum tissue source – CONFIRMED

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