Electronic Supplementary Information

Capillary Electrophoresis Coupled to MALDI Mass Spectrometry Imaging with Large Volume Sample Stacking Injection for Improved Coverage of *C. borealis* Neuropeptidome

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Methods

LC-ESI-MS parameters

For LC-ESI-MS analysis, an Orbitrap Elite (Thermo Scientific, Bremen, Germany) with a nano-ESI source coupled to a Waters nanoAcquity LC system (Waters Corp, Milford, MA, USA) was used for analysis. Samples were dissolved in 15 µL 0.1% FA and 2 µL was injected onto a self-packed C18 column (75 µm inner diameter and 1.7 µm particle size). The flow rate was set to 0.300 µL/min. LC separation was carried out with water with 0.1% FA (A) and acetonitrile with 0.1% FA (B) as mobile phases. A two-hour gradient was implemented as follows: 0-1 min 3-10% B; 1-90 min 10-35% B; 90-92 min 35-95% B; 92-102 min 95% B; 102-105 min 95-3% B; 105-120 min 3% B. MS acquisition was carried out in positive mode from *m/z* 200 to 1600 with a resolution of 120,000.

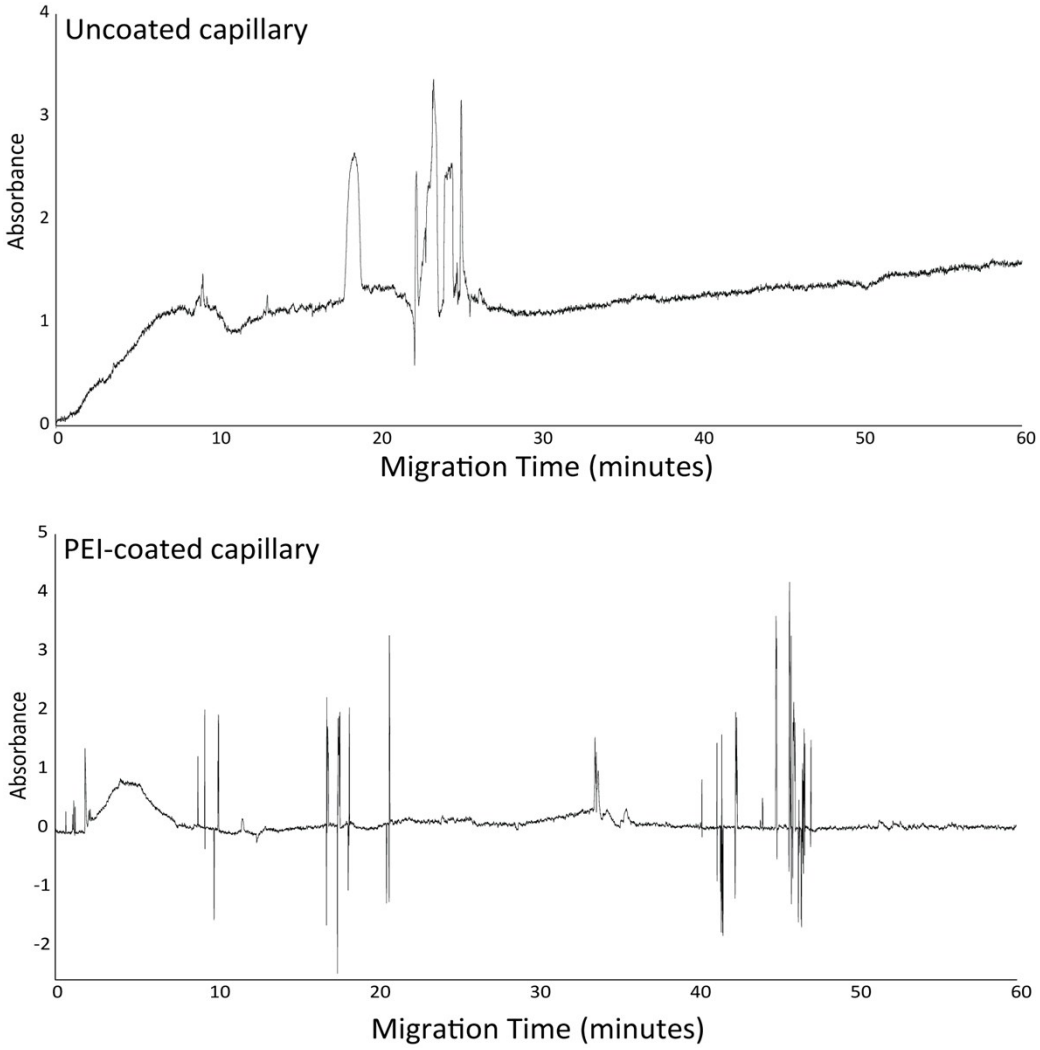

Figure S1. Electropherograms of brain tissue extract separated with an uncoated capillary (top) and a capillary coated with polyethylimmine (PEI), using a UV detector at a wavelength of 240 nm.