

Supporting Information

Capillary UHPLC with Elevated Temperature for Sub-One Minute Separations of Basal Serotonin in Sub-Microliter Brain Microdialysate Samples

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Avoiding interferences from unknown impurities by changing operation conditions. Column: 100 μm i.d. \times 5.8 cm length, 1.7 μm BEH C18 bonded stationary phase. Flow rate: 3.9 $\mu\text{L}/\text{min}$. Mobile phase: pH 4.0 aqueous buffer containing 100 mM sodium acetate, 0.15 mM disodium EDTA, and 10 mM SOS, with 4% (v/v) acetonitrile.

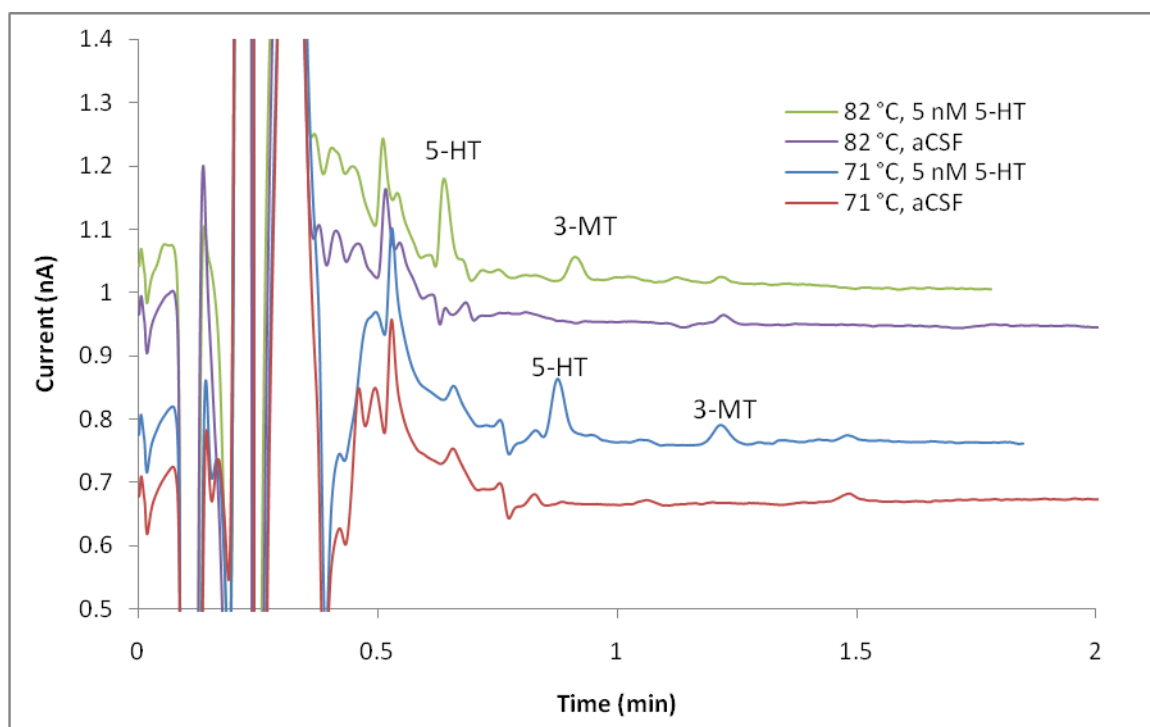


Figure 2. Fast analysis of microdialysis samples for serotonin by capillary HPLC with PFET detection. Column: 100 μm i.d. \times 5.1 cm length, 1.7 μm BEH C18 bonded stationary phase. Temperature: 70 $^{\circ}\text{C}$. PFET detector. Flow rate: 4 $\mu\text{L}/\text{min}$. Mobile phase: pH 4.0 aqueous buffer containing 100 mM sodium acetate, 0.15 mM disodium EDTA, and 18 mM SOS, with 4% (v/v) acetonitrile. Electrochemical detection at +0.7 V. Samples: 1. aCSF, 2. 0.5 nM 5-HT, 3. Baseline microdialysate sample collected at 3 $\mu\text{L}/\text{min}$, 4. Baseline microdialysate sample collected at 1 $\mu\text{L}/\text{min}$. Dialysates were collected from the hippocampus in mice lacking serotonin transporter expression (SERT $^{-/-}$), and had been frozen at -80 $^{\circ}\text{C}$ for 3 weeks before HPLC analysis.

