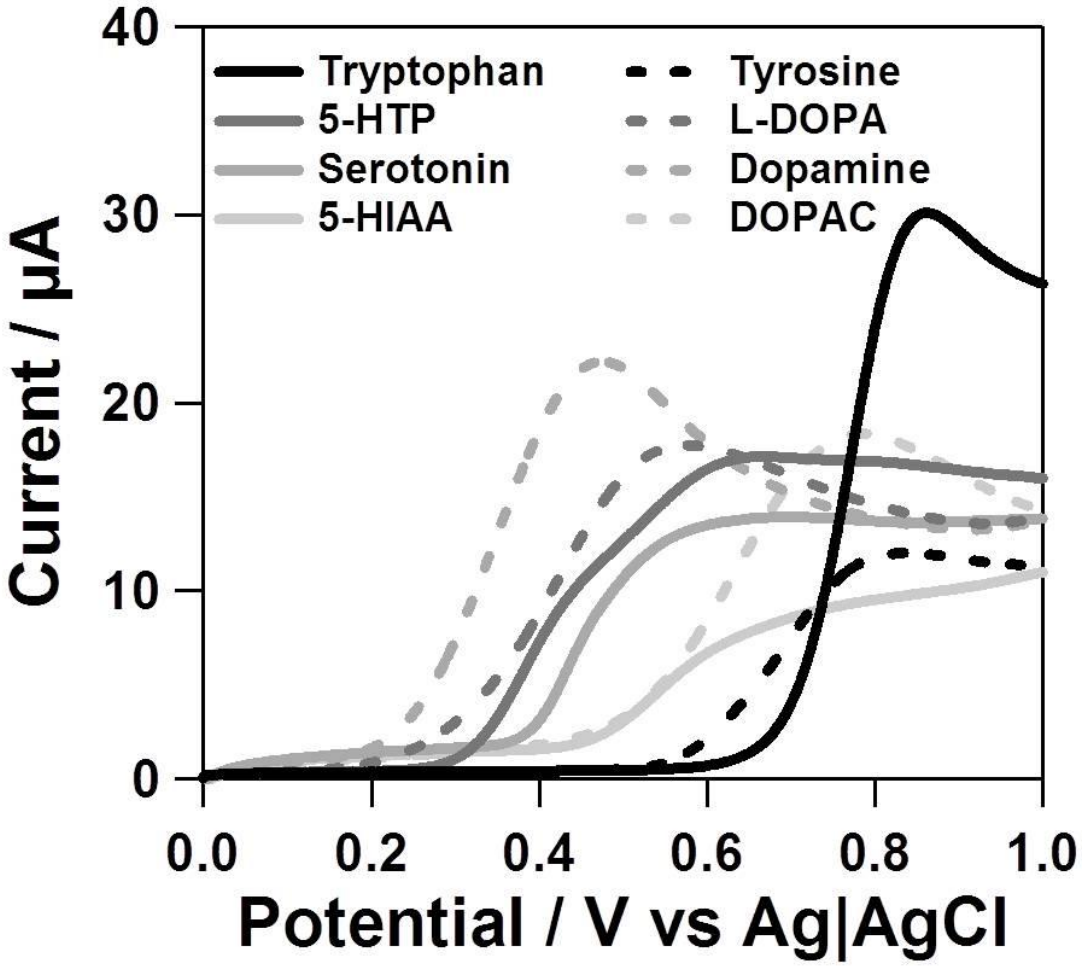
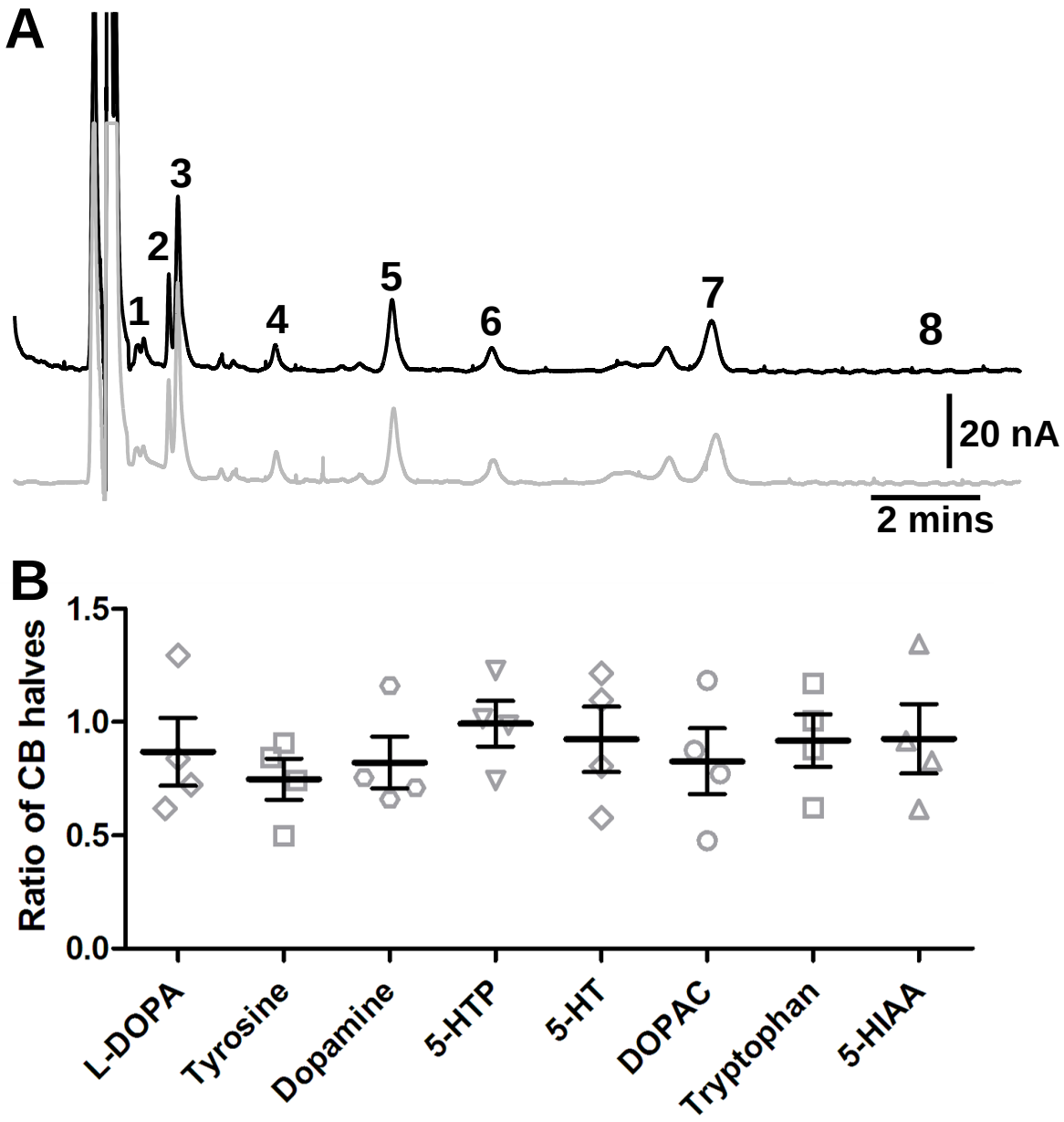
SUPPLEMENTARY FIGURE 1. Figure 1 shows a quasi-steady state hydrodynamic voltammogram (100 mV s^{-1} scan rate) of all the neurochemicals of interest (50 µM) within the assay within a potential range of 0 to +1.0 V, obtained using a glassy carbon electrode and a flow rate of 1 mL min^{-1}. For the majority of the neurochemicals, oxidation at diffusion-limiting rates occurs at a potential around +700 mV, however DOPAC, tyrosine and tryptophan require a greater potential to achieve steady-state current responses. For this reason, a potential of + 850 mV *vs.* Ag|AgCl reference electrode was chosen as the detection potential for the chromatographic assay. Of the analytes assessed, tryptophan had the greatest oxidation current.



SUPPLEMENTARY FIGURE 2. Effect of sample splitting on the levels of neurochemicals. (A) Chromatographic response of a sample split into two and in (B), the ratio of the two sample splits are shown (n=4). No significant difference was observed in the levels of all neurochemicals between the sample splits. Responses shown as median values with error bars indicative of 25 – 75 % ranges. All conditions are similar to those in Figure 1C. **Solutes:** 1 – L-DOPA; 2 – tyrosine; 3 – DA; 4 – 5-HTP; 5 – 5-HT; 6 – DOPAC; 7 – tryptophan and 8 – 5-HIAA.



SUPPLEMENTARY TABLE 1. Supplementary Table 1 shows the calibration range of the analyte of choice, the limit of detection (LOD, based on the 3 standard deviations of the y intercept using least-squares regression) and the correlation coefficient (R^2). All conditions are similar to those in Figure 2C.

Standard	**Calibration range (µM)**	R^2	**Limit of detection (nM)**
L-DOPA	0.01 – 5	0.992	24
Tyrosine	1 – 100	0.996	1120
DA	0.1 – 5	0.993	67
5-HTP	0.01 – 5	0.991	20
5-HT	0.1 – 5	0.992	98
DOPAC	0.01 – 5	0.990	35
Tryptophan	1 – 100	0.993	1240
5-HIAA	0.01 – 5	0.989	29