



**Figure S2.** The extracted ion chromatogram LCMS elution profile of 1 ug/mL standard concentration showing baseline separation of (a) tryptamine (161.1068  $m/z$  & 144.0803  $m/z$ ), dimethyltryptamine (DMT) (189.1379  $m/z$  & 144.0803  $m/z$ ), DMT-D<sub>4</sub> (148.1051  $m/z$  & 193.1626  $m/z$ ), 5-MeO-DMT (219.1485  $m/z$  & 174.0909  $m/z$ ), tetrahydroharmine (THH) (217.1328  $m/z$ , 200.1064  $m/z$  & 188.1065  $m/z$ ), harmaline (215.1172  $m/z$ ), harmine (213.1016  $m/z$ ) and harmine-D<sub>3</sub> (216.1196  $m/z$ ) and co-eluting peaks (b) DMT and harmine, (c) 5-MeO-DMT and harmaline, and (d) DMT-D<sub>4</sub> and harmine-D<sub>3</sub> used as internal standards (ISTD)

