



Supplementary Figure S5. HPLC analysis of *in vitro* catalytic assays of crude enzyme. (A) *In vitro* activity assay of recombinant BaNCS4 using dopamine and 4-HPAA as substrates. (B) *In vitro* activity assay of recombinant Ba6OMT4 using (S)-norcoclaurine as substrate. (C) *In vitro* activity assay of recombinant Ba4'OMT1 and Ba4'OMT2 using (S)-3'-hydroxy-N-methylcoclaurine as substrate. (D) *In vitro* activity assay of recombinant BaSOMT1 using (S)-scoulerine as substrate. The CcNCS, Cc6OMT, Cc4'OMT and CcSMT was used as the positive control, respectively, whereas crude enzyme without substrate and the empty vector with substrate was used as the negative control. The peaks of substrate and product are marked with different colors.