**Supplemental information 1**

Mass spectrometric conditions of duloxetine, 4HDG and fluoxetine

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| Analyte | Precursor ion | Type of ion transition | MRM transition(product ion) | Dwell time (ms) | Q1 pre-bias (V) | Collison energy (V) | Q3pre-bias (V) |
| Duloxetine | 298.25 | Quantifier | m/z 44.15 | 100 | -14 | -11 | -18 |
| Qualifier | m/z 154.10 | 100 | -13 | -10 | -17 |
| 4HDG | 490.25 | Quantifier | m/z 44.20 | 100 | -13 | -21 | -17 |
| Qualifier | m/z 154.15 | 100 | -13 | -10 | -17 |
| Fluoxetine (IS) | 310.15 | Quantifier | m/z 44.20 | 100 | -16 | -13 | -18 |
| Qualifier | m/z 148.15 | 100 | -18 | -7 | -29 |

4HDG: 4-hydroxy duloxetine glucuronide; IS: Internal standard