**Supplementary information**

**Table 1S.** Target analytes and their application/origin

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name of compound | Therapeutic class | Chemical Structure | Log KOW | pKa | Property |
| Caffeine | Stimulants/Caffeine metabolites | C8H10N4O2 | −0.1 | 10.4  | Basic |
| Diclofenac | Analgesics/Anti- inflammatories | C14H11Cl2O2 | 4.5 | 4.2 | Acidic |
| Ibuprofen | Analgesics/Anti- inflammatories | C13H18O2 | 3.9 | 4.9 | Acidic |
| Mefenamic acid | Analgesics/Anti-inflammatories | C15H15NO2 | 5.1 | 4.2, −1.6 | Acidic |
| Nifedipine | Antihypertensive | C17H18N2O6 | 2.2 | 5.3, 3.9 | Basic/ Acidic |
| Perindopril | Antihypertensive | C19H32N2O5 | 2.6 | 3.7, 5.4 | Acidic |
| Simvastatin | Lipid lowering agent | C25H38O5 | 4.6 | 14.9, −2.8 | Basic/ Acidic |

 

Fig. 1S. TIC chromatogram of a standard mixture of 1 mg L-1 for targeted compounds analyzed by negative and positive ionization (ESI) modes of UPLC-MS.