

Supplementary Information

Determination of UV-327 and its metabolites in human urine using dispersive liquid-liquid microextraction and gas chromatography-tandem mass spectrometry

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Fig. SI-1 Chemical structures of the internal standards **D₂₀-UV-327** (2-(5-chloro-benzotriazol-2-yl)-4,6-di-(tert-1,1,1-²H₉]-butyl)-3,5-(²H₁-2H)-phenol), **D₆-UV-327-4-mOH** (2-(5-chloro-benzotriazol-2-yl)-4-(1,1-di-(²H₃]-methyl)-2-hydroxyethyl)-6-(tert-butyl)phenol), **D₆-UV-327-4-mcx** (2-(5-chloro-benzotriazol-2-yl)-4-(1,1-di-(²H₃]-methyl)-1-carboxymethyl)-6-(tert-butyl)phenol), **D₁₂-UV-327-4+6-diOH** (2-(5-chloro-benzotriazol-2-yl)-4,6-di-[1,1-di-(²H₃]-methyl)-2-hydroxyethyl]phenol), and **D₆-UV-327-4mOH-6-mcx** (2-(5-chloro-benzotriazol-2-yl)-6-(1,1-dimethyl-1-carboxymethyl)-4-(1,1-di-(²H₃]-methyl)-2-hydroxyethyl)phenol)

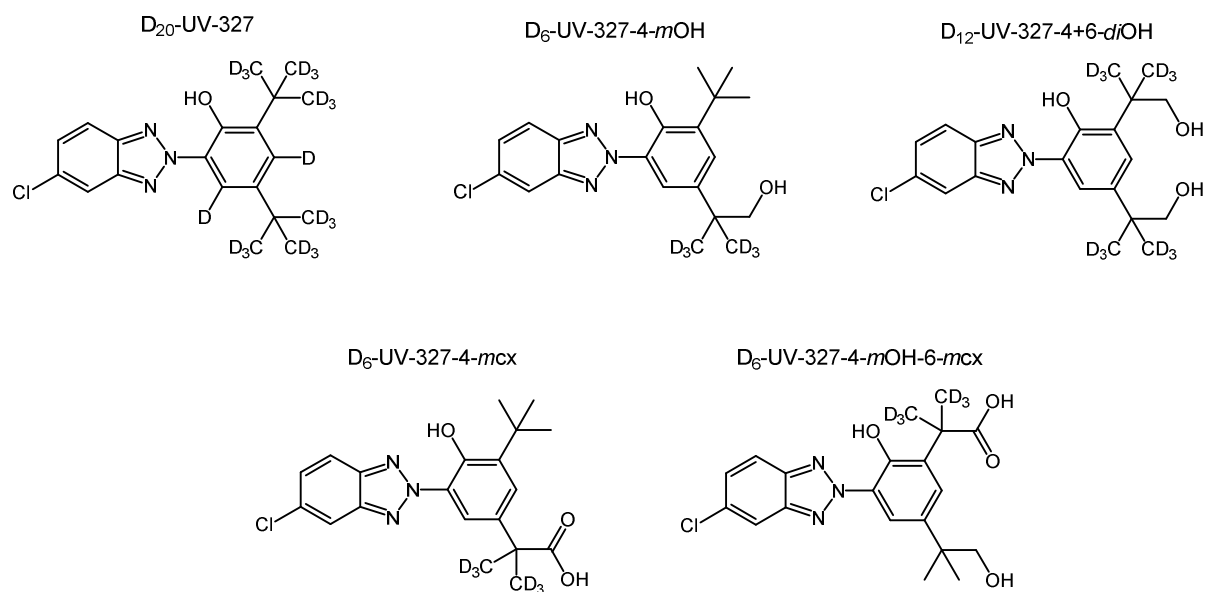


Fig. SI-2 Effect of the extraction solvent volume (n = 3). Extraction solvent (chloroform), 100–450 μl ; disperser solvent (isopropyl alcohol), 700 μl (From left to right: UV-327, UV-327-6-*m*OH, UV-327-4-*m*OH, UV-327-6-*mcx*, UV-327-4-*mcx*, UV-327-4+6-*di*OH, UV-327-4-*m*OH-6-*mcx*, UV-327-4-*mcx*-6-*m*OH)

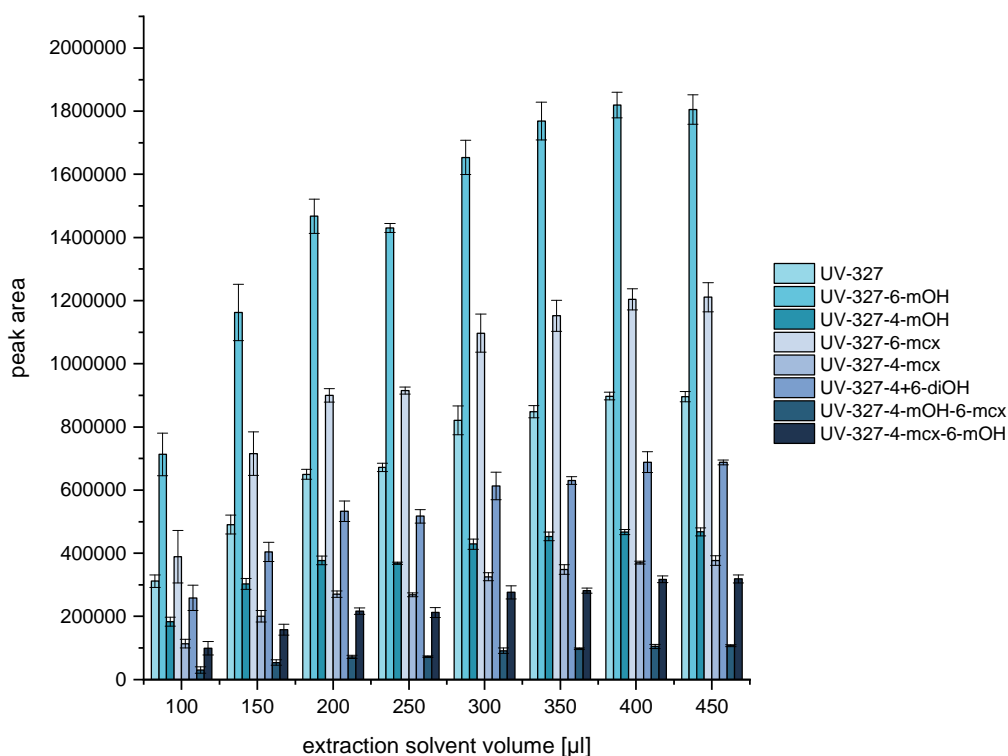


Fig. SI-3 Effect of the disperser solvent volume (n = 3). Extraction solvent (chloroform), 400 μl ; disperser solvent (isopropyl alcohol), 400–1000 μl (From left to right: UV-327, UV-327-6-*m*OH, UV-327-4-*m*OH, UV-327-6-*mcx*, UV-327-4-*mcx*, UV-327-4+6-*di*OH, UV-327-4-*m*OH-6-*mcx*, UV-327-4-*mcx*-6-*m*OH)

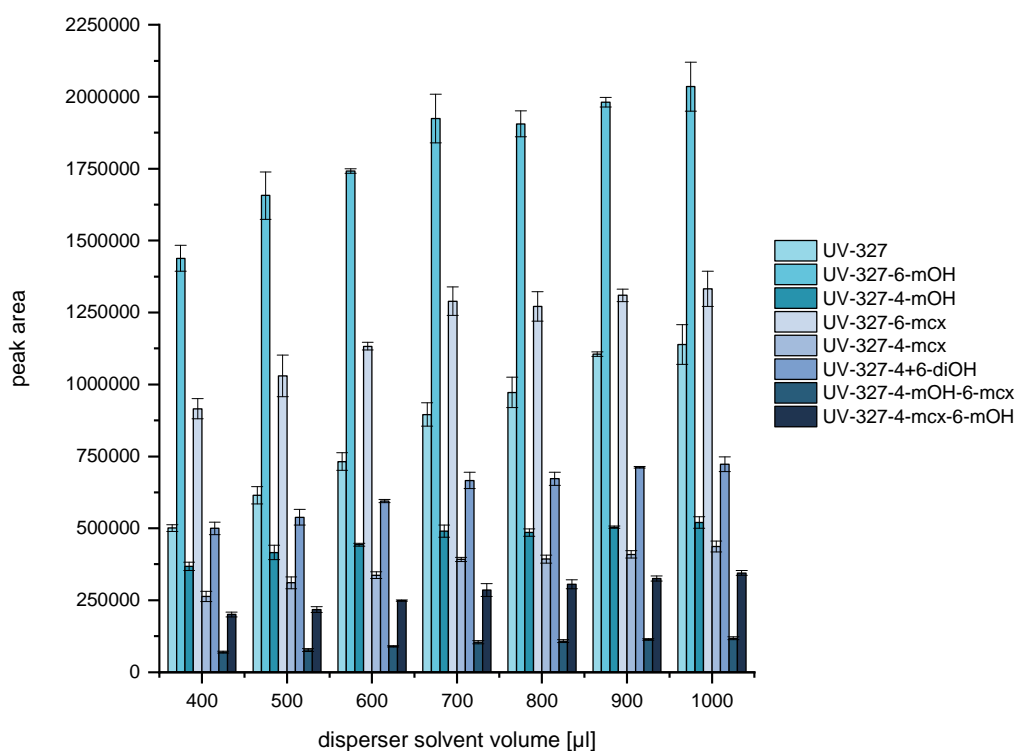


Fig. SI-4 Effect of the pH value in the range of pH < 2.0 to pH 6.0 (n = 3). Extraction solvent (chloroform), 400 μ l; disperser solvent (isopropyl alcohol), 700 μ l (From left to right: UV-327, UV-327-6-*m*OH, UV-327-4-*m*OH, UV-327-6-*mcx*, UV-327-4-*mcx*, UV-327-4+6-*di*OH, UV-327-4-*m*OH-6-*mcx*, UV-327-4-*mcx*-6-*m*OH)

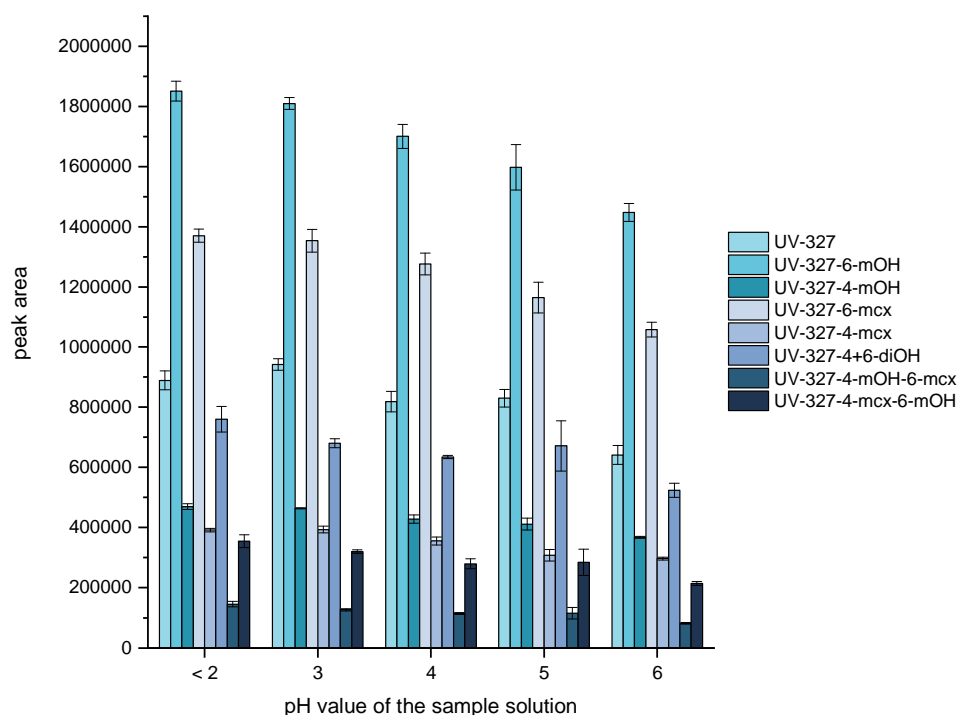


Fig. SI-5 Effect of the duration of vortex-mixing in the range of 0–180 sec (n = 3). Extraction solvent (chloroform), 400 μ l; disperser solvent (isopropyl alcohol), 700 μ l (From left to right: UV-327, UV-327-6-*m*OH, UV-327-4-*m*OH, UV-327-6-*mcx*, UV-327-4-*mcx*, UV-327-4+6-*di*OH, UV-327-4-*m*OH-6-*mcx*, UV-327-4-*mcx*-6-*m*OH)

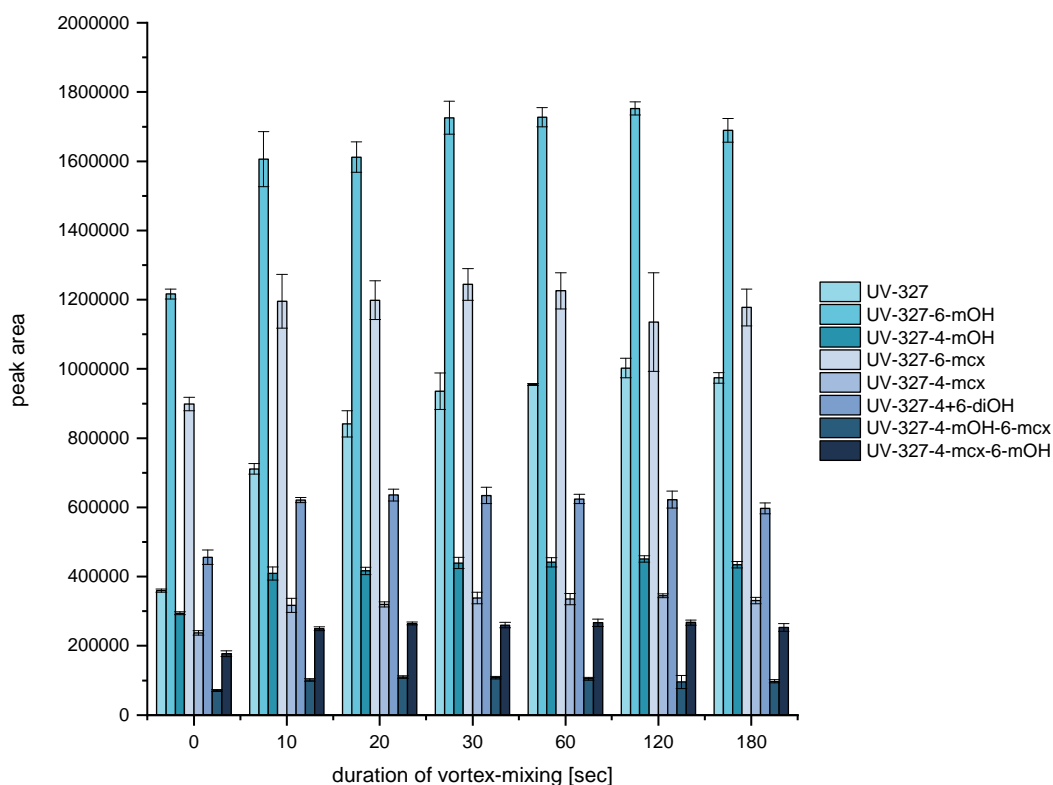


Fig. SI-6 Effect of salt addition in the range of 0–6% NaCl (v/v) (n = 3). Extraction solvent (chloroform), 400 μ l; disperser solvent (isopropyl alcohol), 700 μ l (From left to right: UV-327, UV-327-6-*m*OH, UV-327-4-*m*OH, UV-327-6-*mcx*, UV-327-4-*mcx*, UV-327-4+6-*di*OH, UV-327-4-*m*OH-6-*mcx*, UV-327-4-*mcx*-6-*m*OH)

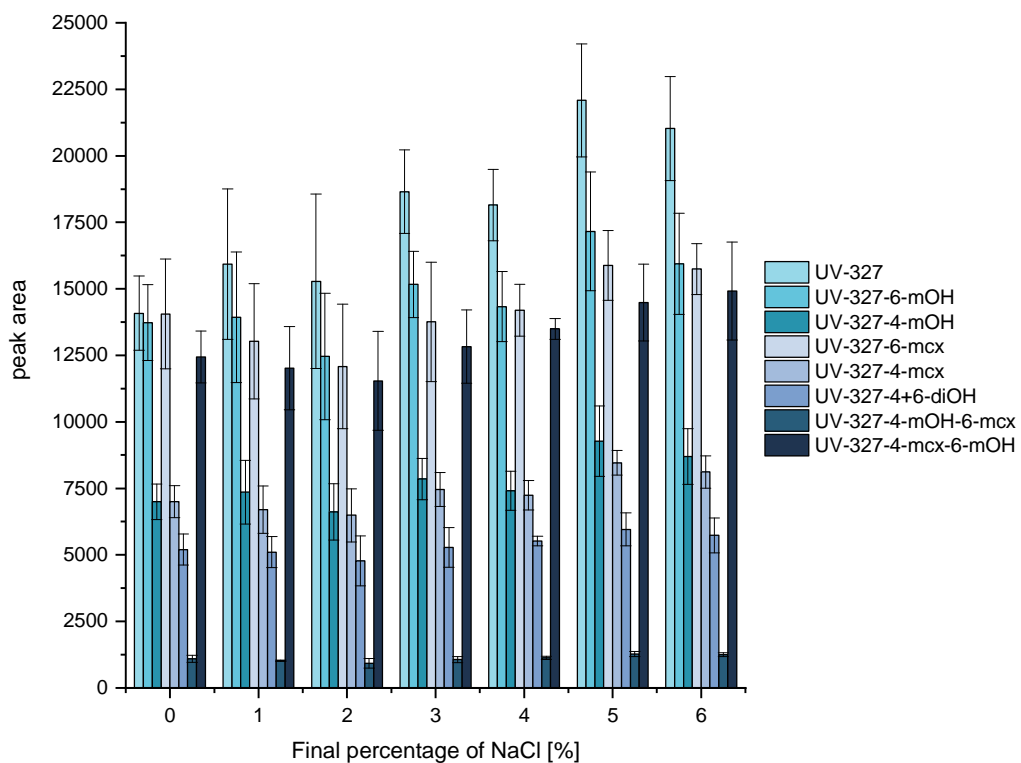


Fig. SI-7 Calibration curves for the determination of UV-327 and its metabolites in urine (ISTD = internal standard)

