

LC-MS/MS method for the simultaneous quantification of luteolin, wedelolactone and apigenin in mice plasma using hansen solubility parameters for liquid-liquid extraction: Application to pharmacokinetics of *Eclipta alba* chloroform fraction

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**Running title:** Simultaneous bio-analysis of luteolin, wedelolactone and apigenin using hansen solubility parameters for liquid-liquid extraction

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**Abbreviations:** APG, Apigenin; CE, Collision Energy; CXP, Collision Exit Potential, DP, Declustering Potential; EP, Entrance potential; FDA, Food and drug administration; GA, Genetic Algorithm; HSP, Hansen Solubility Parameters; I.S, Internal Standard; LLE, Liquid-liquid extraction; LTL, Luteolin; MRM Multiple Reaction Monitoring;  $m/z$ , mass/charge ratio; QRT, Quercetin;  $R_a$ , HSP distance; RP, Reverse Phase; SMILES, Simplified Molecular Input Line Entry System; SPE, Solid Phase Extraction; UFLC, Ultra Fast Liquid Chromatography; WDL, Wedelolactone;  $\delta D$ , Van der Waals dispersion;  $\delta H$ , Hydrogen Bonding;  $\delta P$ , Dipole moment polarity;

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