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## Supported liquid extraction and LC-MS/MS determination of iloperidone and olanzapine in rat plasma: Application to a pharmacokinetic study

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A sensitive, selective rapid bio analytical assay method was developed and quantification of iloperidone and olanzapine in rat plasma by mass spectrometry. Systematic sample preparation and extraction procedure was carried out SLE (supported liquid extraction) using DCM (dichloro methane) to extract the both the eluents (iloperidone and olanzapine) from rat plasma samples. The extorted samples injected on a selective Waters XTerra® C18 reverse-phase bonded column (250×4.6 mm i.d., 5 µm) using acetonitrile and 15 mM ammonium formate containing 0.05% trifluoroacetic acid (60:40 v/v) for isocratic elution mode and detected by mass spectrometry. A calibration curves were drawn with the respective assay statistical data and shows a linear with regression coefficients greater than 0.9996 over the concentration ranges 2–5000 ng/mL for iloperidone and olanzapine respectively. The absolute mean recoveries were found to be in the replicate range of 87.12 to 94.47% respectively. The method was evinced with obtained results good intra- and inter-day assay performance in terms of 1.70-5.90% precision and 0-5% accuracy. The validated bioassay method has been successfully applied to the pharmacokinetics in rats.