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LC–MS/MS assay for baclofen, a derivative of γ –aminobutyric acid (GABA) in human plasma and its clinical application

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Abstract : A high performance liquid chromatography mass spectrometric method for the estimation of baclofen, in human plasma in positive ion mode was developed and validated using baclofen d4 as internal standard (IS). Sample preparation was accomplished by solid phase extraction technique. The reconstituted samples were chromatographed on Kromasil 100-5C8 4.6×150 mm columns using a mobile phase consisting of acetonitrile and 10mM ammonium acetate (80:20, v/v).The method was validated over a concentration range of 20.1 ng/mL to 1000ng/mL for baclofen. This validation report provides the results of selectivity, matrix effect, sensitivity determinations, linearity, precision and accuracy data, the results of recovery, various stabilities, run size evaluation and dilution integrity along with all pertinent documentation.
Keywords : Baclofen; Human plasma; LC–MS/MS; Method validation; Pharmacokinetics.

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