

Poster Presentations – Field A1. Pharmacology

[PA1-1] [10/18/2002 (Fri) 09:30 – 12:30 / Hall C]

Determination of bioavailability of tolperisone HCl by HPLC

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Tolperisone hydrochloride is used as a muscle relaxant. Very few assay methods of tolperisone were reported, such as potentiometry, spectrophotometry and high performance thin layer chromatography. In addition, there is no report related to HPLC method to determine the tolperisone level in biological sample. In this study, A very sensitive reverse phase high performance liquid chromatographic (RP-HPLC) method for the determination of tolperisone HCl in plasma has been developed. Tolperisone HCl was isolated from plasma by extraction with dichloromethane. The drug was separated on a C18 column (4.6 mm x 150 mm) using 0.05% 1-hexanesulfonic acid in 45/55 v/v methanol/water as mobile phase 1 ml/min and UV detection at 260 nm. The detection limits for tolperisone HCl was 1 ng/ml and the quantitation limits was 5 ng/ml. Linear calibration curves over 5–750 ng/ml of tolperisone HCl was established. The average recovery of added tolperisone HCl was above 95%. The proposed method was applied to the determination of bioavailability of a tolperisone HCl tablet in 8 volunteers

[PA1-2] [10/18/2002 (Fri) 09:30 – 12:30 / Hall C]

Determination of Optical Purity of α -Arylmethylpropionic acids by Normal Phase Liquid Chromatography

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A various 2-arylmethylpropionic acids(profen) have been widely used as non-steroidal anti-inflammatory drugs for the relief of acute and chronic rheumatoid arthritis and osteoarthritis, as well as for other connective tissue disorders and pains. Example is fenoprofen, ibuprofen, ketoprofen, and naproxen. All are chiral and, except for naproxen, are marketed in racemic form. Enantioseparations of profens have been of considerable interest because their anti-inflammatory and analgesic effects have been attributed almost exclusively to their (S)-enantiomer. A simple method for determination of (+) and (-) - α -arylmethylpropionic acids has been developed . By means of EEDQ, α -arylmethylpropionic acids is coupled to (S)-naphthylethylamide, a reaction which is complete in 3hr at room temperature . The diastereoisomeric derivatives are then separated by normal-phase high-performance liquid chromatography.

[PA1-3] [10/18/2002 (Fri) 09:30 – 12:30 / Hall C]

Phosphatidylinositol 3-Kinase Regulates Nuclear Translocation of NF-E2-Related Factor 2 through Actin Rearrangement in Response to Oxidative Stress