

## LC/MS methods on CHIRAL-AGP (examples from published literature)

### Enantiomeric determination of amlodipine in human plasma by liquid chromatography coupled to tandem mass spectrometry

*B.Streel et.al*

*J.Biochem.Biophys.Methods 54 (2002) 357-368*

A sensitive, accurate and precise method for the separation of the enantiomers of **amlodipine** has been developed on the **CHIRAL-AGP** column. Human plasma samples are extracted using SPE. After evaporation the samples are dissolved in the mobile phase and injected onto the column.

Column: **CHIRAL-AGP** 150x4.0 mm  
Mobile phase: 1% 1-propanol in 10 mM ammonium acetate pH 4.5  
Detection: Tandem mass spectrometry with APCI interface in the positive-ion mode  
Validation: Linearity, precision, accuracy  
LOQ: 100 pg/ml

### Simultaneous quantification of the enantiomers of verapamil and its N-demethylated metabolite in human plasma using liquid chromatography-tandem mass spectrometry

*M.Hedeland et al*

*J.Chromatogr.B 804 (2004) 303-311*

A sensitive and simple method for the simultaneous quantification of the enantiomers of **verapamil** and its active main metabolite **norverapamil** without the need for achiral pre-separation or chemical derivatization.

Column: **CHIRAL-AGP** 150x4.0 mm  
Mobile phase: 15% acetonitrile in 20 mM ammonium acetate pH 7.4  
Detection: LC-MS/MS with ESI interface in the selective reaction monitoring (SRM) mode  
Validation: Linearity, precision, accuracy  
LOQ: 100 pg/ml

### Determination of the enantiomers of ketamine and norketamine in human plasma by enantioselective liquid chromatography-mass spectrometry

*M.E. Rodriguez Rosas et al*

*J.Chromatogr.B 794 (2003) 99-108*

A simple, sensitive and reproducible method for the enantioselective and simultaneous determination of **ketamine** and **norketamine**. Including calibration and quality control standards up to 60 patient samples/day can be analyzed.

Column: **CHIRAL-AGP** 100x4.0 mm  
Mobile phase: 6% 2-propanol in 10 mM ammonium acetate pH 7.6  
Detection: LC-MS with API-ES interface in the positive-ion mode  
Validation: Linearity, precision, accuracy  
LOQ: 1.0 ng/ml

### Method development and validation for quantitative determination of methadone enantiomers in human plasma by liquid chromatography/tandem mass spectrometry

*H.R.Liang et al*

*J.Chromatogr.B 806 (2004) 191-198*

A validated LC/MS/MS assay for the quantitative determination of **methadone** enantiomers in plasma. This high-throughput method offers improved specificity, sensitivity and ruggedness over previously published methods and is very fast with base-line separation in 5 minutes.

Column: **CHIRAL-AGP** 50x2.0 mm  
Mobile phase: 12% 2-propanol in 10 mM ammonium acetate (pH unadjusted)  
Detection: Tandem mass spectrometry with API interface in the multiple-reaction monitoring mode  
Validation: Linearity, precision, accuracy  
LOQ: 5 ng/ml

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