

Technical Datasheet

Analysis Name: Determination of Tetracycline by LC-MS/MS

Method Number: LIBR 132

Scope Application: This instruction describes a multi-residue method for the qualitative determination of five tetracyclines and their related epimers in milk-based products including infant formula powders, meat-based products and baby foods by liquid chromatography tandem mass spectrometry (LC-MS/MS).

Description: Compounds are extracted from food matrices using acetonitrile extraction, followed by different steps of freezing and clean-up of the supernatant with hexane. After a concentration step, the resulting solution is filtered and analysed by LC-MS/MS in SRM mode using the positive electrospray ionisation mode. Each routine sample is extracted twice: first as such and second fortified at STC level for the sum of the parent drug and its epimer. This procedure allows verification that the analyte added in the spiked routine sample is visible regardless of the matrix.

Sample Weight Required: 100 g

Method Reference: -

Analytical Platform: LC-MS/MS

Special Information: Qualitative method. Method not accredited.

Analyte Reported	Alias	Unit of Measure	Typical Limit of Quantification	Uncertainty
Chlortetracycline+ 4-epimer	-	µg/kg	50	Not Applicable
Demeclocycline + 4-epimer	-	µg/kg	50	Not Applicable
Doxycycline + 6-epimer	-	µg/kg	50	Not Applicable
Oxytetracycline + 4-epimer	-	µg/kg	50	Not Applicable
Tetracycline + 4-epimer	-	µg/kg	50	Not Applicable
Chlortetracycline+ 4-epimer	-	µg/kg	50	Not Applicable