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Nestlé Quality Assurance Center
Dublin

Technical Datasheet

Analysis Name: Tetracyclines in Food by LC-MS/MS

Method Number: LI-00.611

Scope of Application: Milk-based products including infant formula powders, meat-based products and baby foods.

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 50 µg/kg 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.

Positive identification of tetracyclines and their epimers is conducted

Sample Weight Required: 20 g

Method Reference: AOAC OMA 2020.04: Screening of 154 Veterinary Drug Residues in Foods of Animal Origin using LC-MS/MS

Commission Regulation (EU) No 37/2010 of 22 December 2009 on pharmacologically active substances and their classification regarding maximum residue limits in foodstuffs of animal origin.

Analytical Platform: HPLC-MS/MS



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Screening Targeted Concentration (µg/kg)			
Compounds	Milk-based product & Infant formula powder	Meat-based product (Raw and cooked meat, Elaborated meat, Dehydrated meat)	Baby food
Sum of Tetracycline + 4-epimer	50	50	50
Sum of Oxytetracycline + 4-epimer	50	50	50
Sum of Chlortetracycline + 4-epimer	50	50	50
Sum of Doxycycline + 6-epimer	50	50	50
Sum of Demeclocycline + 4-epimer	50	50	50