Determination of mycophenolic acid in meat products using mixed mode reversed phase-anion exchange clean-up and liquid chromatography-high-resolution mass spectrometry

A method for determination of mycophenolic acid (MPA) in dry-cured ham, fermented sausage and liver pate is described. MPA was extracted from meat with bicarbonate-acetonitrile, further cleaned-up by mixed mode reversed phase-anion exchange and detected using a LC-MS system with electrospray ionisation-time-of-flight detection. The limit of detection was 4 µg/kg in sausage and 6 µg/kg in ham and pate. The method was successfully used for quantification of MPA in dry-cured ham and liver pate artificially inoculated with Penicillium brevicompactum. Levels ranged from 190 µg/kg in centre to 11 mg/kg in surface of ham and from 150 µg/kg in bottom to 14 mg/kg in surface of pate. (C) 2008 Elsevier B.V. All rights reserved.