



GelSpec - Animal Origin Analysis

GelSpec detects the animal origin of gelatine and gelatine-based products. Gelatine is extracted from samples and analysed by peptide-LC-MS/MS to determine whether the sample contains porcine (pork) and/or ruminant gelatine. Reference samples are analysed alongside the samples. The reporting limit of the method is 0.1% w/w. This service uses mass spectrometry to detect minute differences in the amino acid sequence of the gelatine protein from different species.

GelSpec supports the determination of species from which gelatine is derived and aids in supporting suppliers in accurate labelling of foods. Previously, identifying animal origin of gelatine has been very difficult as the severe production process renders traditional DNA-based techniques redundant.

The correct identification of the species of animal products used in food, pharmaceuticals and animal feed is of particular importance given consumer interest in traceability and also the religious and ethical concerns for consumers who wish to avoid certain products.



Our Service

This service detects multiple tryptic peptides as markers for species confirmation. This method is incredibly accurate in identifying the origins of the gelatine using mass spectrometry to detect minute differences in the amino acid sequence of the gelatine protein from different species. This service is vital for detecting the fraudulent blending of animal products from different species, determining species origins in gelatine mixtures with a reporting limit of 0.1% (w/w).

Sample Size

Normally 100g of food is sufficient for the analysis of complex food samples (or 200 capsules for pharmaceutical capsules). The method is suitable for the following matrices - confectionery (gums, chewable sweets, nougat, liquorice, chewing gum, marshmallows), desserts (including jellies, mousses, flans, toppings), chocolate, yogurts, icing, hams, corned beef, canned meats, pies, jams, curds and stock cubes.

Turnaround & Reporting Limits

We offer a batch of up to 4 samples on a standard turnaround of 20 working days from receipt of the sample. The report will be provided including comprehensive details of the sample identity, date of receipt and customer details. An outline of the method of analysis will be provided along with a synopsis of the results.

The reporting limit is 0.1% (w/w).

