

ANIMAL SPECIES IDENTIFICATION

The Need for Food Speciation

The identification of animal species in food might be required for economic, religious, food-safety and a host of other important reasons. In response to this requirement, Agrigen Biotech has developed a suite of highly sensitive and specific DNA tests for pork/pig, lamb/sheep, beef/cattle, and poultry/chicken.

How to Identify Animal Species in Food Products

The identification of animal species in food products needs to be based on the detection of specific genomic DNA fragments from those species. Protein-based methods of detection are not appropriate since, in the case of processed foods, most proteins would be denatured during processing. Species identification assays that are based on the detection of the Cytochrome B gene are highly prone to cross-reactions among many other species, including insects.

Agrigen Biotech has developed a number of species-specific real-time PCR assays based on MGB probe technology. These proprietary PCR assays enable one-step detection of beef, lamb, pork, chicken, goat and buffalo in a range of sample types, including cooked and rendered meats. All PCR analyses are carried out at Agrigen Biotech's fully equipped molecular biology laboratory in Sydney using state-of-the-art real-time PCR instrumentation.

Methods:

- Beef (*Bos taurus*) specific real-time PCR assay
- Lamb (*Ovis aries*) specific real-time PCR assay
- Pork (*Sus scrofa*) specific real-time PCR assay
- Goat (*Capra hircus*) specific real-time PCR assay
- Buffalo (*Bubalus bubalis*) specific real-time PCR assay
- Chicken (*Gallus domesticus*) specific real-time PCR assay

Quality Control: Duplicate analysis, positive control, blank

Minimum Sample Required: 100 g

Sample Preservation: Not applicable

Limit of Reporting: 0.125% w/w

Turn-around Time: 3 working days, up to 20 samples per batch

For further enquiries, including pricing and turn-around times for batches containing more than 20 samples, call Dr Richard Z Guo on 0412 122 953, or contact our Sydney office.