

Fact Sheet

Fish Speciation

We offer a method for the definitive identification of a large number of fish species in raw and processed foods using the latest DNA-based analytical techniques. The principle of the technique is to use Polymerase Chain Reaction (PCR) to amplify DNA sequences which are unique to the genetic material of a given fish species. The test is highly specific and has an optimum detection of 1%.

Overview

The principle of the technique involves firstly the *Polymerase Chain Reaction* (PCR), which amplifies specific DNA fragments in the food matrix and secondly the digestion of these amplified DNA fragments by the use of DNA-cutting restriction enzymes. These enzymes cut the amplified DNA at defined locations and produce a characteristic "ladder" pattern of bands unique to a given fish species, which can be matched against those obtained from reference DNA.

Standard turnaround time is 20 working days.

Below is a table containing a list of fish species that can be identified using this method:

Common Name	Latin Name	Common Name	Latin Name
Brill	<i>Scophthalmus rhombus</i>	Salmon, Chinook	<i>Oncorhynchus tshawytscha</i>
Cod, Atlantic	<i>Gadus morhua</i>	Salmon, Chum	<i>Oncorhynchus keta</i>
Cod, Pacific	<i>Gadus macrocephales</i>	Salmon, Coho	<i>Oncorhynchus kisutch</i>
Dab	<i>Limanda limanda</i>	Salmon, Pink	<i>Oncorhynchus gorboscha</i>
Eel, European	<i>Anguilla anguilla</i>	Salmon, Sockeye	<i>Oncorhynchus nerka</i>
Flounder	<i>Platichthys flesus</i>	Sea Bass	<i>Paralabrax humeralis</i>
Haddock	<i>Melanogrammus aeglefinus</i>	Sole, Lemon	<i>Microstomus kitt</i>
Hake, European	<i>Merluccius merluccius</i>	Sprat	<i>Sprattus sprattus</i>
Halibut	<i>Hippoglossus</i>	Swordfish	<i>Xiphias gladius</i>
Hoki	<i>Macroronus</i>	Trout, Brown	<i>Salmo trutta</i>
Mackerel, Atlantic	<i>Scomber scombrus</i>	Trout, Rainbow	<i>Oncorhynchus mykiss</i>
Pilchard, European	<i>Sardina pilchardus</i>	Tuna, Pacific Bluefin	<i>Thunnus orientalis</i>
Plaice, European	<i>Pleuronectes platessa</i>	Tuna, Bigeye	<i>Thunnus obesus</i>
Plaice, European	<i>Pleuronectes platessa</i>	Tuna, Northern Bluefin	<i>Thunnus thynnus</i>
Pollock, Alaska	<i>Theragra chalcogramma</i>	Tuna, Skipjack	<i>Katsuwonus pelamis</i>
Roughy, Orange	<i>Hoplostethus atlanticus</i>	Tuna, Southern Bluefin	<i>Thunnus maccoyii</i>
Salmon, Atlantic	<i>Salmo salar</i>	Tuna, Yellowfin	<i>Thunnus albacares</i>
Salmon, Cherry	<i>Oncorhynchus masou</i>	Turbot	<i>Scophthalmus maximus</i>



For further information contact Customer Services

Phone: +44 (0) 118 9184076

Email: enquiries@rsri.com

www.rsri.com