

Title (en)

METHODS FOR THE DETECTION AND QUANTIFICATION OF NEMATODE PARASITES IN FISH AND FISH PRODUCTS

Title (de)

VERFAHREN ZUM NACHWEIS UND ZUR QUANTIFIZIERUNG VON NEMATODENPARASITEN IN FISCHEN UND FISCHPRODUKTEN

Title (fr)

PROCEDE DE DETECTION ET DE QUANTIFICATION DE NEMATODES PARASITES DANS LE POISSON ET LES PRODUITS A BASE DE POISSON

Publication

EP 2240599 A1 20101020 (EN)

Application

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Priority

IB 2008000212 W 20080130

Abstract (en)

[origin: WO2009095729A1] A molecular method based on real time PCR for the detection of the presence of Anisakis spp. and Pseudoterranova spp. parasites in fish fillets and fish- derived food products, such as babyfood, surimi, fish slices, fish sticks and the like, as well as for performing a relative quantification of nematode larvae content, comprises the steps of: - preparing a first amplicon from the ITS-I region specifically able to identify all species belonging to Anisakis and Pseudoterranova species, and a second amplicon able to amplify DNA from any host DNA, such as fish, and from any organic component or foodstuff, said amplicons being located on redundant genomic regions providing more power to detect a PCR product in degraded samples; - testing the primer pairs in the same real time PCR conditions on reference samples made from various mixtures of Anisakid nematodes and fish; - for fish fillets (not products): quantifying the larval mass in the fish sample by calculation versus a known reference; - for fish fillets and products: calculating the amount of Anisakid DNA versus the amount of total DNA in each sample. A molecular method based on real time PCR for discriminating different Anisakid species in order to test the geographic provenance of Anisakid-containing fish, comprises: - aligning the ITS I sequences of different Anisakid species typical of different predetermined seas, - designing a real time PCR assay based on detection of sequence variations, - determining whether a fish (and product containing fish) coming from a predetermined sea is contaminated by a given Anisakid species.

IPC 8 full level

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Citation (search report)

See references of WO 2009095729A1

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