

1. リアリアルタイム PCR 法によるスケトウダラ卵加工品中のマダラ卵およびカラフトシシャモ卵の検出

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A rapid and sensitive TaqMan real-time PCR assay for the detection of Pacific cod (*Gadus macrocephalus*) and capelin (*Mallotus villosus*) roes in Alaska pollack (*Theragra chalcogramma*) roe product was developed. The primers and the TaqMan MGB (minor groove binder) probes were designed based on the gene encoding cytochrome *b* for the specific detection of Alaska pollack, Pacific cod and capelin. This real-time PCR assay had the detection limit of 0.002 ng/ μ L mitochondrial DNA and showed no cross-reaction with 48 other species. The calculated r^2 values of the standard curves for the three species were 1.000. This assay was applied for the detection of Pacific cod and capelin roes in mixture samples: Pacific cod or capelin roes were added to Alaska pollack roes at 0.1, 1 and 10%. The threshold cycle values were obtained from both of the mixture samples at 0.1%. Practical applicability of this assay was examined with 64 samples of Alaska pollack roe products. In all cases, the species detected from the samples corresponded with species described on the food label.

※震災により中止されたため、紙面にて発表。