

PRODUCT INFORMATION SHEET

Yellowfin Tuna (Thunnus albacares), Atlantic Halibut (Hippoglossus hippoglossus), Atlantic Salmon (Salmo salar), Black Tiger Prawn (Penaeus monodon) and Japanese Scallop (Mizuhopecten yessoensis)

PT originated REFERENCE MATERIAL (RM)

Description of the RM

Name / Material of related PT	DLA ptAUS4 (2024) Seafood Screening: Yellowfin Tuna (<i>Thunnus albacares</i>), Atlantic Halibut (<i>Hippoglossus hippoglossus</i>), Atlantic Salmon (<i>Salmo salar</i>), Black Tiger Prawn (<i>Penaeus monodon</i>) and one of the Scallops: Japanese Scallop (<i>Mizuhopecten yessoensis</i>) or Pilgrim's Scallop (<i>Pecten jacobaeus</i> , <i>Pecten maximus</i>) - samples 1-5 with one of the indicated species, sample 6: mixed sample of 2-4 species
Identifier / LOT	RM 2024-AUS4 Set (1-6)
Expiry date	March 2029
Matrix	Lyophilized seafood preparation in maltodextrin (The amounts of water losses were complemented to 100% by adding maltodextrin according to the literature values)
Physical description	Powder
Packaging / weight	Sealed foil pouche / 10 g
Storage conditions	2-10°C, long term 2-10°C (dry and dark)
Name and address manufacturer	DLA - Proficiency Tests GmbH Hauptstr. 80, 23845 Oering, Germany Tel. ++49-(0)4532-9183358, Fax. ++49(0)4102-9944976 eMail. pt@dla-lvu.de, website. www.dla-lvu.de

Composition of Material

Ingredients	Samples 1 - 5	Sample 6 (mixed sample)
Maltodextrin	62-83 %	82%
Fish/Crustacean/molluscs contents (dry weight)	17-38 %	18%
further Ingredients: silicon dioxide	-	< 0,05 %

* The crustaceans/fish/molluscs used were commercially available products (whole raw crustaceans /whole raw fish or fish fillets and whole raw molluscs).

Ingredients *	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6 (mixed sample)
Yellowfin Tuna (<i>Thunnus albacares</i>)	negative	negative	positive (100%)	negative	negative	negative
Atlantic Halibut (<i>Hippoglossus hippoglossus</i>)	positive (100%)	negative	negative	negative	negative	positive (31%)
Atlantic Salmon (<i>Salmo salar</i>)	negative	negative	negative	positive (100%)	negative	negative
Black Tiger Prawn (<i>Penaeus monodon</i>)	negative	negative	negative	negative	positive (100%)	negative
Japanese Scallop (<i>Mizuhopecten yessoensis</i>)	negative	positive (100%)	negative	negative	negative	positive (69%)
Pilgrim's Scallop (<i>Pecten jacobaeus</i> , <i>Pecten maximus</i>)	negative	negative	negative	negative	negative	negative

* Seafood species contents of freeze-dried food items reconstituted with maltodextrin (see table 1) as indicated in the column of ingredients according gravimetric mixing

Note: The metrological traceability of temperature, mass and volume during production of the PT samples is ensured by DAKKS-compliant calibrated reference materials.

Minimum Sample Size

A minimum sample size of 5 g is recommended for sample preparation

Reference Values

All reference values were derived from the related proficiency test (PT) round (for more details see final report).

Reference Values qualitative (without consensus values)**

Protein-based methods*	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6 (mixed sample)
Yellowfin Thuna (<i>Thunnus albacares</i>)	negative	negative	positive	negative	negative	negative
Halibut (<i>Hippoglossus hippoglossus</i>)	positive	negative	negative	negative	negative	positive
Atlantic Salmon (<i>Salmo salar</i>)	negative	negative	negative	positive	negative	negative
Black Tiger Prawn (<i>Penaeus monodon</i>)	negative	negative	negative	negative	positive	negative
Japanese Scallop (<i>Mizuhopecten yessoensis</i>)	negative	positive	negative	negative	negative	positive
Fish	positive	negative	positive	positive	negative	positive
Crustaceae	negative	negative	negative	negative	positive	negative
Molluscs	-	positive	negative	negative	-	positive

* MALDI-TOF

** Only one participant submitted results obtained by protein-based methods for Yellowfin Thuna, Halibut, Atlantic Salmon, Black Tiger Prawn, Japanese Scallop, Fish, Crustaceae and Molluscs. The results for samples 1-4 are in qualitative agreement with the spiking of samples 1-4 and the consensus values of the results of the DNA-based methods.

Reference Values qualitative (Consensus Values*)

* Consensus values $\geq 75\%$ positive or negative results of PT-participants

DNA-based methods*	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6 (mixed sample)
Yellowfin Thuna (<i>Thunnus albacares</i>)	negative	negative	positive	negative	negative	negative
Halibut (<i>Hippoglossus hippoglossus</i>)	positive	negative	negative	negative	negative	positive
Atlantic Salmon (<i>Salmo salar</i>)	negative	negative	negative	positive	negative	negative
Black Tiger Prawn (<i>Penaeus monodon</i>)	negative	negative	negative	negative	positive	negative
Japanese Scallop (<i>Mizuhopecten yessoensis</i>)	negative	positive	negative	negative	negative	positive
Pilgrim's Scallop (<i>Pecten jacobaeus</i> , <i>Pecten maximus</i>)	negative	negative	negative	negative	negative	negative
Fish	positive	negative	positive	positive	negative	positive
Crustaceae	negative	negative	negative	negative	positive	negative
Molluscs	negative	positive	negative	negative	negative	positive

* PCR, RFLP-PCR, Sequencing technologies (e.g. NGS; Sanger-Sequencing)

Intended Use

- for laboratory use only, no food!
- validation of analytical methods
- control sample for quality control charts
- test material for inter-laboratory comparisons

Storage Instructions and Handling Information

The material should be stored as stated on page 1. Before use of the material should be warmed up to room temperature. The content should be mixed thoroughly prior to subsampling (see minimum sample size above). The material should be weighed immediately after opening of the foil poche/bottle and closed again afterwards in order to avoid uptake of moisture. Frequent freezing and thawing should be avoided as this can lead to changes in the properties of the material. The expiry date of this RM is based on the current knowledge and applies only for proper storage conditions in the originally closed foil poche/bottle.

Safety Precautions

The usual laboratory safety precautions should be applied when working with the RM considering the type of ingredients, parameters and its concentration.

Data Source

The material was analyzed by 9 laboratories within the related proficiency test (PT). Different analytical methods have been used.

Various

The user must determine the suitability of this RM for its particular purpose. DLA makes no warranty of any kind, expressed or implied, other than its products meet all quality control standards set by DLA. We do not guarantee this product can be used for a special application.



approved (PT-Coordinator)	updated
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17 April 2025	2 April 2026