PRODUCT INFORMATION SHEET

Celery, Crustaceae, Molluscs and Peanut in Spiking Level Sample (SP)

PT originated REFERENCE MATERIAL (RM)

Description of the RM

Name / Material of related PT	*DLA ptAL09 (2025) – Allergens IX: Celery, Crustaceae, Molluscs and Peanut in Barbecue Spice Mixture (with Onion, Garlic and Paprika powder) [Samples A + B] and "Spiking Level Sample" [SP] –* ***Sample SP*** *(Spiking Level Sample)*
Identifier / LOT	*RM 2025-AL09 SP*
Expiry date	*March 2027*
Matrix	*Potato Powder*
Physical description	*Powder*
Packaging / weight	*Sealed foil pouche / 15 g*
Storage conditions	*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	Sample A	Sample B	**Sample SP** **present sample**
Barbecue Spice Mixture, organic Ingredients: sweet paprika powder (46%), granulated garlic (33%), chopped onions (21%) **positive sample:** allergenic ingredients as below	99,6 g/100 g	100 g/100 g	-
Potato Powder Ingredients: Potatoes, E471, E304, E223, E100	-	-	99,6 g/100 g
Celery **Seeds, ground, mixture** of 8 products (Europe, Asia) – as celery* – *thereof 19,4% total protein***	 23,1 mg/kg 4,48 mg/kg	-	 22,7 mg/kg 4,42 mg/kg
Crustaceae **King prawns, freeze-dried, milled** – as crustaceae, dried* – *thereof 87,0% total protein*** – *calculated as tropomyosin****	 56,6 mg/kg 49,2 mg/kg 9,84 mg/kg	-	 52,3 mg/kg 45,5 mg/kg 9,10 mg/kg
Molluscs **Pacific Oyster (Crassostrea gigas), raw, freeze dried, milled** – as molluscs, dried* – *thereof 41,1% total protein*** – *calculated as raw oyster, wet weight****	 102 mg/kg 42,0 mg/kg 560 mg/kg	-	 99,4 mg/kg 40,9 mg/kg 546 mg/kg
Peanut **Peanut, roasted, milled**, mixture (18 products from USA, Asia, Africa, South America) – as peanut* – *thereof 23,2% total protein***	 18,2 mg/kg 4,23 mg/kg	-	 18,6 mg/kg 4,31 mg/kg
further Ingredients: Maltodextrin, sodium sulfate and silicon dioxide	<0,3 g/100 g	-	<0,3 g/100 g

* Allergen contents as "total food" as described in the column ingredients according to the gravimetric mixture
** Protein contents according to laboratory analysis of the raw material (total nitrogen according to Kjeldahl with F=6,25 for celery protein, crustaceae protein and molluscs protein, F=5,46 for peanut protein)
*** Crustaceae: Calculation with approx. 20% tropomyosin in crustaceae protein, wet weight of the present King prawns is not available; Molluscs: Calculation of raw pacific oyster wet weight with 18,2 % dry matter (determined gravimetrically after freeze-drying by DLA)

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 / Homogeneity
A minimum sample size of 5 g is recommended for sample preparation.

The homogeneity tests were performed with sample sizes of 5 g (Microtracer analysis).
The mixture homogeneity after bottling was examined 10-fold by microtracer analysis. Homogeneity was sufficient with a probability of ≥ 25% (excellent mixture) and a HorRat value in the range of acceptance (0,3 to 1,3).

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

Reference Values quantitative in mg/kg ELISA

Parameter	Crustaceae (as total protein)		Crustaceae (as tropomyosin)
	All Results*	Method RS-E**	All Results * (**Info**)
Number of results	6°	5°	7°
Number of outliers	2	1	1
Assigned Value (Xpt)	***55,5***	***53,3***	***1,47***
Robust standard deviation	13,7	15,3	0,793
Standard uncertainty	7,00	8,53	0,375
Target standard deviation σpt	13,9	13,3	0,367
Target range	***27,8 – 83,3***	***26,7 – 80,0***	***0,734 – 2,20***

* ELISA Method: diverse Methods
** ELISA Method: RS-E = Ridascreen® Easy, R-Biopharm
° without outlier / (Info): for information only

Parameter	Molluscs (as tropomyosin)	Peanut	
	All Results*	All Results*	Method RS**
Number of results	8	19°	8°
Number of outliers	-	2	1
Assigned Value (Xpt)	***0,247***	***45,7***	***42,6***
Robust standard deviation	0,118	14,9	9,11
Standard uncertainty	0,0523	4,26	4,02
Target standard deviation σpt	0,0617	11,4	10,6
Target range	***0,123 – 0,370***	***22,9 – 68,6***	***21,3 – 63,9***

* ELISA Method: diverse Methods
** ELISA Method: RS = Ridascreen®, R-Biopharm
° without outlier

Reference Values qualitative ELISA

Parameter	Crustaceae (as total protein)*	Crustaceae (as tropomyosin)*	Molluscs (as tropomyosin)*	Peanut*
Number positive	9	10	9	22
Number negative	0	0	0	0
Percent positive	100	100	100	100
Percent negative	0	0	0	0
Consensus value	***positive***	***positive***	***positive***	***positive***

* Results of diverse ELISA Methods (LODs positive results Crustaceae as total protein 0,014-2,5 mg/kg, Crustaceae as tropomyosin 0,0009-0,02 mg/kg, Molluscs 0,002-1,7 mg/kg, Peanut 0,08-15 mg/kg)

Reference Values qualitative PCR

Parameter	Celery (as celery seeds)*	Crustaceae (dried)*	Molluscs (fresh)*	Peanut*
Number positive	22	13	14	16
Number negative	1	1	0	0
Percent positive	96	93	100	100
Percent negative	4	7	0	0
Consensus value	***positive***	***positive***	***positive***	***positive***

* Results of diverse PCR Methods (LODs positive results Celery 0,008-50 mg/kg, Crustaceae 0,4-10 mg/kg, Molluscs 0,008-20 mg/kg, Peanut 0,008-10 mg/kg)

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

Storage Instructions and Handling Information
The material should be stored as stated on page 1. Before use, 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 pouche/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 know-ledge and applies only for proper storage conditions in the originally closed foil pouche/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 29 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.

created	approved (PT-Coordinator)	updated
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signed A. Scharf	*signed M. Besler-Scharf*	-
13 April 2026	13 April 2026	-