PRODUCT INFORMATION SHEET

Celery, Mustard and Sesame
in Spice Salt (positive)

PT originated REFERENCE MATERIAL (RM)

Description of the RM

Name / Material of related PT	*DLA ptAL04 (2025) – Allergens IV:* ***Celery, Mustard and Sesame in Spice Salt*** *with "Spiking Level Sample" (3 different Samples) –* ***Sample A*** *(positive sample)*
Identifier / LOT	*RM 2025-AL04 A*
Expiry date	*August 2029*
Matrix	*Spice Salt*
Physical description	*Powder*
Packaging / weight	*Sealed foil pouche / 25 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** **present sample**	Sample B	Sample SP
Spice Salt Ingredients: Table salt (96%), paprika pepper, pepper (black) and **positive sample:** allergenic ingredients as below	99,9 g/100 g	100 g/100 g	-
Potato Powder Ingredients: Potatoes, E471, E304, E223, E100	-	-	99,9 g/100 g
Celery **Seeds, ground, mixture** of 8 products (Europe, Asia) – as celery* – thereof 19,4% total protein**	 17,7 mg/kg 3,43 mg/kg	-	 18,2 mg/kg 3,54 mg/kg
Mustard, yellow (Sinapis alba) **Seeds, ground, mixture** of 9 products (Europe, Asia) – as mustard* – thereof 30,7% total protein**	 17,5 mg/kg 5,38 mg/kg	-	 17,8 mg/kg 5,46 mg/kg
Sesame, white (Sesamum indicum) **Seeds, ground, mixture** of 10 products (Africa, Asia, South America) – as sesame* – *thereof 24,5% total protein***	 29,5 mg/kg 7,24 mg/kg	-	 31,5 mg/kg 7,73 mg/kg
further Ingredients: *Maltodextrin and silicon dioxide*	<0,2 g/100 g	-	<0,2 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 with F=6,25 for celery, mustard and sesame protein)
Note: *The metrological traceability of temperature, mass and volume during production of the PT samples is ensured by DAkkS-compliant calibrated reference*

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) and 1 - 5 g (ELISA methods), respectively.
The mixture homogeneity 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). The homogeneity tests of the parameters Mustard and Sesame were carried out by ELISA analyzing two subsets from 10 test items (according to ISO 13528:2015 Annex B). Homogeneity was sufficient with a standard deviation between the samples Ss of ≤ 15% („heterogeneity standard deviation“) using ELISA test kits from different manufacturers, e.g. AgraQuant Allergen ELISA Romer Labs, GSD Allergen ELISA Gold Standard Diagnostics Kassel, Morinaga Food Allergen ELISA Kits MIoBS, Veratox ELISA for Food Allergens Neogen (for more details see final report of PT).

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	**Mustard**	
	All Results*	Method RS-E**
Number of results	21	8
Number of outliers	-	-
Assigned Value (Xpt)	***16,5***	***15,8***
Robust standard deviation	5,04	5,11
Standard uncertainty	1,38	2,26
Target standard deviation σpt	4,11	3,95
Target range	***8,23 – 24,7***	***7,89 – 23,7***

* ELISA Method: divers Methods
** ELISA Method: RS-E= Ridascreen® Easy, R-Biopharm

Parameter	**Sesame**	
	All Other Methods (**Info**) *	Method RS-F**
Number of results	10	9
Number of outliers	-	-
Assigned Value (Xpt)	***14,6***	***58,3***
Robust standard deviation	9,72	17,0
Standard uncertainty	3,84	7,08
Target standard deviation σpt	3,66	14,6
Target range	***7,32 – 22,0***	***29,2 – 87 5***

* ELISA Method: divers Methods without method RS-F, (Info): for information only
** ELISA Method: RS-F= Ridascreen® Fast, R-Biopharm

Reference Values qualitative ELISA

Parameter	**Mustard***	**Sesame***
Number positive	21	20
Number negative	0	0
Percent positive	100	100
Percent negative	0	0
Consensus value	***positive***	***positive***

* Results of diverse ELISA Methods (LODs positive results Mustard 1,0-2,0 mg/kg, Sesame 0,14-2,5 mg/kg

Reference Values quantitative in mg/kg PCR

Parameter	Celery	Mustard	Sesame
	All Results (**Info**)*	All Results (**Info**)*	All Results (**Info**)*
Number of results	5	4	3
Number of outliers	-	-	-
Assigned Value (Xpt)	***32,0***	***39,6***	***17,2***
Robust standard deviation	16,5	17,3	2,60
Standard uncertainty	9,23	10,8	1,88
Target standard deviation σpt	8,00	9,91	4,30
Target range	***16,0 – 48,0***	***19,8 – 59,4***	***8,60 – 25,8***

* (Info): due to low number of results for information only

Reference Values qualitative PCR

Parameter	Celery*	Mustard*	Sesame*
Number positive	28	22	15
Number negative	0	0	0
Percent positive	100	100	100
Percent negative	0	0	
Consensus value	***positive***	***positive***	***positive***

* Results of diverse PCR Methods (LODs positive results Celery 0,08-1,0 mg/kg, Mustard 0,4-1,0 mg/kg, Sesame 0,4-1,0 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 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 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 knowledge 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 33 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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signed M. Besler-Scharf	*signed U. Vorreiter*
3 November 2025	1 September 2026