

PRODUCT INFORMATION SHEET

ALM Verification: Celery in Spice Mixture

**5 Samples containing Celery Seed
(Levels 1,0 / 5,0 / 10 / 25 / 50 mg/kg)**

PT originated REFERENCE MATERIAL (RM)

Description of the RM

Name / Material of related PT	DLA ptALM2 (2022) ALM-Verification Celery: 5 Samples containing Celery Seed in Spice Mixture (powder) (and a "blank sample")
Identifier / LOT	RM 2022-ALM2 Set
Expiry date	May 2027
Matrix	Spice Mixture
Physical description	Powder
Packaging / weight	Sealed foil poche / 20 g
Storage conditions	room temperature, long term cooled 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

PT-Sample series	Level 0 „blank“	Level 1 1,0 mg/kg	Level 2 5,0 mg/kg	Level 3 10 mg/kg	Level 4 25mg/kg	Level 5 50 mg/kg
Ingredients	g/100 g	g/100g	g/100g	g/100g	g/100g	g/100g
Spice Mixture Ingredients: paprika >50%, turmeric 23%, black pepper 15%, onion, marjoram, cumin, chillies, garlic	100	> 99,9	> 99,9	> 99,9	> 99,9	99,9
further ingredients: maltodextrin and silicon dioxide	-	< 0,01	< 0,01	< 0,03	< 0,05	< 0,10
Allergen-Contents	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Celery Seeds milled, mixture (8 products from EU and non-EU countries) – as celery* – thereof 19,4% total protein**	- ***	1,01 0,195	5,05 0,979	10,1 1,96	25,2 4,88	50,4 9,78
–	-					
Extended combined uncertainty (k=2) of Celery-content (= ± 12 %)		± 0,12	± 0,61	± 1,2	± 3,0	± 6,0

*Allergen contents as „total food“ as described in column ingredients according to gravimetric mixture

** Protein contents according to laboratory analysis of raw material (total nitrogen according to Kjeldahl with F=6,25 for celery protein)

*** no celery was added, however residual traces can not be excluded (see note on next page)

Minimum Sample Size

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 before bottling was examined 8-fold by microtracer analysis. Homogeneity was sufficient with probabilities of ≥ 25% (excellent mixtures) and HorRat values in or slightly above the range of acceptance (0,3 to 1,3) (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 qualitative PCR

	Level 0 „Blank“	Level 1 1,0 mg/kg	Level 2 5 mg/kg	Level 3 (Action Level) 10 mg/kg	Level 4 25 mg/kg	Level 5 50 mg/kg
Number positive	3	4	5	6	6	6
Number negative	3	2	1	0	0	0
Percent positive	50	67	83	100	100	100
Percent negative	50	33	17	0	0	0
Consensus value	none	none	positive	positive	positive	positive
Spiking	negative	positive	positive	positive	positive	positive

Methods:

ASU = ASU §64 method

SFA = Sure Food ALLERGEN, R-Biopharm / Congen

SFA-4p = Sure Food Allergen 4plex, R-Biopharm / Congen

div = not indicated / other method

Note: All participants detected the action level of 10 mg/kg. For level 2 (1/2 of the action level) 83% positive results were obtained. For the “blank” level 0 and level 1 no consensus values of $\geq 75\%$ positive or negative results were obtained. These low levels are close to the range of the limits of detection (LOD) or quantification (LOQ) of the methods. However, traces of celery in the “blank” level 0 can not be excluded. Some participants reported results for Level 0 in the range of 0-2,5 mg/kg and one participant in the range of 2-5 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 5 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.

Median of recovery rates (for information only)

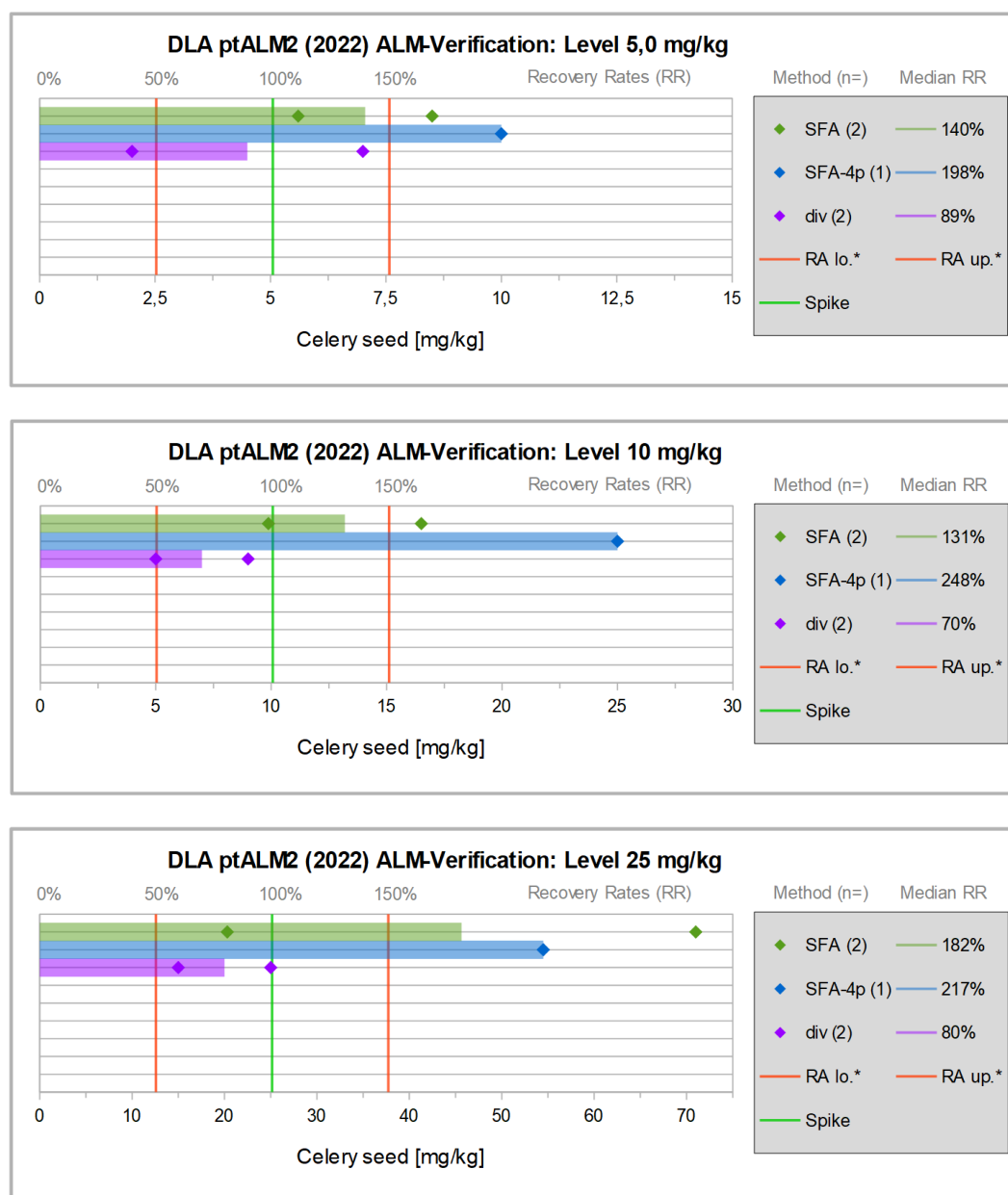


Fig. 1: Celery Allergen Recovery Rates (PCR methods) - Dot plot of single results (Level 2-4 separated according to methods with indication of the median recovery rate), lower scale content in mg/kg, upper scale recovery rate in % with * acceptance range of 50% - 150% (* range of acceptance: RA lower limit to RA upper limit), **note:** for method "div" a result range from only 1 participant is given



approved (PT-Coordinator)	updated
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