

PRODUCT INFORMATION SHEET

Almond, Brazil nuts, Cashew, Coconut, Hazelnut, Macadamia, Pecan, Pine nuts, Pistachio and Walnut*PT originated REFERENCE MATERIAL (RM)***Description of the RM**

Name / Material of related PT	DLA ptALS1 (2024) Allergen Screening I: Almond, Brazil nuts, Cashew, Coconut, Hazelnut, Macadamia, Pecan, Pine nuts, Pistachio and Walnut - Samples 1-4
Identifier / LOT	RM 2024-ALS1 Set
Expiry date	June 2028
Matrix	Allergens in simple matrix (see tables)
Physical description	Powder
Packaging / weight	Sealed foile poche / 20 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	Amounts
Potato powder (Ingredients: Potatoes, E471, E304, E223, E100)	74 - 76 %
Maltodextrin	24 - 26 %
Allergen-Premixes <u>Ingredients:</u> Maltodextrin, Sodium sulfate, Silicon dioxide and Allergens (1,1% - 10% each)	0,05 - 0,42 %

Added allergenic ingredients positive amounts in parenthesis in mg/kg** given as food item

Ingredients *	Sample 1	Sample 2	Sample 3	Sample 4
Almond: Nuts, crushed (Protein 25,5%)	positive (51)	negative	positive (73)	negative
Brazil Nuts: Nuts, crushed (Protein 14,8%)	negative	negative	negative	positive (44)
Cashew: commercial nut butter (Protein 18,4%)	negative	positive (47)	negative	negative
Coconut: commercial flour (Protein 18,8%)	positive (54)	negative	negative	positive (81)
Hazelnut: commercial nut butter (Protein 15,9%)	positive (27)	negative	positive (49)	negative
Macadamia: Nuts, crushed (Protein 9,8%)	negative	positive (74)	negative	positive (41)
Pecan: Nuts, crushed (Protein 11,6%)	negative	positive (25)	negative	positive (52)
Pine Nuts: Nuts, crushed (Protein 25,1%)	positive (51)	positive (77)	negative	negative
Pistachio: Nuts, crushed (Protein 24,9%)	negative	negative	positive (59)	negative
Walnut: Nuts, crushed (Protein 13,9%)	negative	positive (46)	positive (28)	negative

* Protein contents according to laboratory analysis (total nitrogen, Kjeldahl general factor F=6,25)

** Allergen contents of „food item“ 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.

The detectability or absence of the allergens was tested by DLA using lateral flow assays. The results are in agreement with the spiking of the PT samples 1-4.

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 was examined 10-fold by microtracer analysis. Homogeneity was sufficient with a probability of $\geq 25\%$ (excellent mixture) and a HorRat value in 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 proficiency test (PT) round (for more details see final report).

Reference Values qualitative (Consensus Values*)

Methods	Sample 1	Sample 2	Sample 3	Sample 4
Almond ELISA / LFD	positive	negative	positive	negative
Almond PCR	positive	negative	positive	negative
Brazil Nuts ELISA / LFD	negative	negative	negative	positive
Brazil Nuts PCR	negative	negative	negative	positive
Cashew ELISA / LFD	negative	positive	none**	negative
Cashew PCR	negative	positive	negative	negative
Coconut ELISA / LFD	positive	negative	negative	positive
Coconut PCR	positive	negative	negative	positive
Hazelnut ELISA / LFD	positive	negative	positive	negative
Hazelnut PCR	positive	negative	positive	negative
Macadamia ELISA / LFD	negative	positive	negative	positive
Macadamia PCR	negative	positive	negative	positive
Pecan ELISA / LFD	negative	positive	positive	positive
Pecan PCR	negative	positive	negative	positive
Pine Nuts ELISA / LFD	positive	positive	negative	negative
Pine Nuts PCR	positive	positive	negative	negative
Pistachio ELISA / LFD	negative	none**	positive	negative
Pistachio PCR	negative	negative	positive	negative
Walnut ELISA / LFD	negative	positive	positive	none**
Walnut PCR	negative	positive	positive	negative

* Consensus values are in qualitative agreement with the spiking of sample 1-4

** Due to the number of < 75% concordant results, no consensus value could be set.

Note: Some unexpected positive results can be due to possible cross-reactivities of the applied methods (for more details see final report). Possible cross-reactivities should be documented in the manufacturer's test kit information.

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 25 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.



Datum / Date: 14 May 2025

Ulrike Vorreiter
- signed U. Vorreiter