Cambridge Isotope Laboratories, Inc. Certificate of Analysis

Freeze-Dried Eggs Reference Material

Catalog number:	EDF-5491
Lot number:	I-17119
Effective Date:	June 2013
Review Date:	June 2023 (unopened bottle only)
Amount per Ampoule:	6 Grams

Storage and Handling: Store refrigerated (-5ºC to 5ºC). Protect from light. This product contains natural contamination of dioxins, furans, PCBs, and possibly other organic contaminants. It should be handled according to OSHA guidelines for hazardous material.

Intended Use: For laboratory use only. Not suitable for human consumption.

Preparation: This product is prepared from eggs originating from a farm in Italy. Multiple eggs were combined, homogenized, freeze-dried, ground, re-homogenized, and sieved to < 100 µm before packaging.

Interlaboratory Analyis: This product was analyzed in an international interlaboratory study conducted by Cambridge Isotope Laboratories. Participating laboratories used a variety of sample preparation and analytical techniques.

Interlaboratory results: Results of the international interlaboratory study are attached. Consensus values were independently assigned by TRIUM Inc. (Canada) using statistical analysis software. All values are presented at three significant figures. Analytes with fewer than five laboratories contributing acceptable data do not have assigned values reported in this study.

Authorized Signature: Jeffrey O'Neill **June 2013**

Quality Review Date

Participating Laboratories

Agat Laboratories – Canada
Centre D'Expertise En Analyse Environnemental du Quebec – Canada
Danish Veterinary and Food Administration – Denmark
The Dow Chemical Company – USA
Eurofins GfA Lab Service GmbH – Germany
GV Conselleria de Sanidad-Centro Salud Pública – Spain
Hiyoshi Corporation – Japan
IDEA Consultants – Japan
Instituto Espanol de Oceanografia – Spain
Japan Environmental Sanitation Center – Japan
Nab Labs Oy – Finland
National Measurement Institute – Australia
Oekometric GmbH – Germany
Osaka Prefectural Institute Public Health – Japan
RIKILT Institute of Food Safety – The Netherlands
SGS Analytical Perspectives – USA
Shimadzu Techno-Research Inc. – Japan
TestAmerica, Inc. – USA
Universidad de Cantabria – Spain
WESSLING GmbH - Germany

Results

The following tables list the assigned value, standard deviation, reference value, and number of reported values for each analyte in the particular item class.

(all values in ng/kg)

Analyte	Assigned Value[1]	Standard Deviation	Reference Value[2]	(n)[3]
Polychlorinated dioxins & furans				
2,3,7,8-TetraCDD	0.21	0.27	0.21 ± 0.54	6
1,2,3,7,8-PentaCDD	0.34	0.23	0.34 ± 0.46	8
1,2,3,4,7,8-HexaCDD	0.16	0.09	0.16 ± 0.18	6
1,2,3,6,7,8-HexaCDD	0.75	0.94	0.75 ± 1.88	11
1,2,3,7,8,9-HexaCDD	0.34	0.57	0.34 ± 1.14	7
1,2,3,4,6,7,8-HeptaCDD	1.21	1.94	1.21 ± 3.88	11
OctaCDD	2.08	1.22	2.08 ± 2.44	11
2,3,7,8-TetraCDF	0.47	0.33	0.47 ± 0.66	10
1,2,3,7,8-PentaCDF	0.35	0.17	0.35 ± 0.34	11
2,3,4,7,8-PentaCDF	0.56	0.27	0.56 ± 0.54	15
1,2,3,4,7,8-HexaCDF	0.40	0.16	0.40 ± 0.32	11
1,2,3,6,7,8-HexaCDF	1.98	5.54	1.98 ± 11.08	11
2,3,4,6,7,8-HexaCDF	0.40	0.26	0.40 ± 0.52	11
1,2,3,4,6,7,8-HeptaCDF	1.42	3.45	1.42 ± 6.90	9

Analyte	Assigned Value[1]	(all values in ng/kg) Standard Deviation	Reference Value[2]	(n)[3]
Polychlorinated biphenyls[4]				
2,4,4'-TriCB (PCB-28)	162.18	116.24	162.18 ± 232.48	13
2,2',3,5'-TetraCB (PCB-44)	211.74	312.30	211.74 ± 624.60	6
2,2',4,5'-Tetra CB (PCB-49)	18.86	14.59	18.86 ± 29.18	6
2,2',5,5'-TetraCB (PCB-52)	82.11	110.65	82.11 ± 221.30	12
2,4,4',5-TetraCB (PCB-74)	74.68	22.18	74.68 ± 44.36	6
3,3',4,4'-TetraCB (PCB-77)	13.88	8.06	13.88 ± 16.12	15
3,4,4',5-TetraCB (PCB-81)	1.20	0.67	1.20 ± 1.34	13
2,2',4,4',6-PentaCB (PCB-99)	155.50	16.22	155.50 ± 32.44	6
2,2',4,5,5'-PentaCB (PCB-101)	116.30	136.03	116.30 ± 272.06	11
2,3,3',4,4'-PentaCB (PCB-105)	183.90	82.88	183.90 ± 165.76	18
2,3,4,4',5-Penta CB (PCB-114)	10.67	5.05	10.67 ± 10.10	14
2,3',4,4',5-PentaCB (PCB-118)	510.66	243.31	510.66 ± 486.62	18
2',3,4,4',5-PentaCB (PCB-123)	9.74	7.71	9.74 ± 15.42	13
3,3',4,4',5-PentaCB (PCB-126)	6.62	2.96	6.62 ± 5.92	15
2,2',3,3',4,4'-HexaCB (PCB-128)	113.04	77.83	113.04 ± 155.66	7
2,2',3,4,4',5'-HexaCB (PCB-138)	809.55	272.24	809.55 ± 544.48	13
2,2',3,4',5',6-HexaCB (PCB-149)	77.15	20.88	77.15 ± 41.76	6
2,2',3,5,5',6-HexaCB (PCB-151)	38.08	13.62	38.08 ± 27.24	5
2,2',4,4',5,5'-HexaCB (PCB-153)	901.71	515.86	901.71 ± 1031.72	13
2,3,3',4,4',5-HexaCB (PCB-156)	109.00	46.26	109.00 ± 98.52	16
2,3,3',4,4',5'-HexaCB (PCB-157)	24.49	17.73	24.49 ± 35.46	14
2,3,3',4,4',6-HexaCB (PCB-158)	68.57	9.50	68.57 ± 19.00	6
2,3',4,4',5,5'-HexaCB (PCB-167)	50.38	23.32	50.38 ± 46.64	16
3,3',4,4',5,5'-HexaCB (PCB-169)	4.30	8.64	4.30 ± 17.28	13
2,2',3,3',4,4',5-HeptaCB (PCB-170)	381.94	222.44	381.94 ± 444.88	9
2,2',3,3',4',5,6-HeptaCB (PCB-177)	109.83	14.16	109.83 ± 28.32	6
2,2',3,4,4',5,5'-HeptaCB (PCB-180)	658.68	319.61	658.68 ± 639.22	15
2,2',3,4,4',5',6-HeptaCB (PCB-183)	120.67	17.27	120.67 ± 34.54	6
2,2',3,4',5,5',6-HeptaCB (PCB-187)	274.50	38.73	274.50 ± 77.46	6
2,3,3',4,4',5,5'-HeptaCB (PCB-189)	15.29	6.49	15.29 ± 12.98	14
2,2',3,3',4,4',5,5'-OctaCB (PCB-194)	103.02	16.80	103.02 ± 33.60	7
2,2',3,3',4,4',5,6-OctaCB (PCB-195)	41.56	14.82	41.56 ± 29.64	5
2,2',3,3',4,5,5',6'-OctaCB (PCB-201)	90.29	48.20	90.29 ± 96.40	6
2,2',3,3',4,4',5,5',6-NonaCB (PCB-206)	20.90	12.69	20.90 ± 25.38	5
Other contaminants				
Hexachlorobenzene	155.92	85.91	155.92 ± 171.82	5

[1] Assigned value as determined by TRIUM Inc. (Canada) using STATISTICA data analysis software analysis of raw interlaboratory study data.

[2] Reference value is the Assigned Value plus or minus two standard deviations. Negative numbers resulting from two standard deviations being greater than the assigned value have no significance.

[3] Number of laboratories providing results for this analyte.

[4] All numbers in parentheses refer to the IUPAC designation for the compound.

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Bologna (Department of Chemical Analysis of Food)
Via Fiorini, 5 Bologna (BO) - Tel 051/4200022 - Fax 051/4200055

Test Report: 2012/25737/1
Date of issue:07/02/2012

Material tested:	EGGS		
Motivation of the message:	Internal Circuits Laboratory		
Number of samples:	1		
Sample identification:	1) EGG C		
Sampling date:	31/01/2012	Place of collection:	Via P. Fiorini 5 Bologna (BO)
Accompanying document:	11 CIND 2011		
Date of receipt:	31/01/2012		
Registration Date:	31/01/2010	at:	Bologna (Department of Chemical Degla food)
Owner:	IZSLER - Department of Food Ingredient Of Animal Origin resident by Fiorini, 5 - 40100 Bologna (BO)		
Headquarters:	Department of Chemical Aliment Via P.Fiorini 5-40100 Bologna (BO)		
Consignor:	Department of Chemical Aliment resident in Via P.Fiorini 5-40100 Bologna (BO)		
Condition of material given:	suitable		
Notes to the acceptance:	INCA Consortium		

RESULTS OF TESTS

1st test: Influenza type A: causative agent technique: Real-time PCR method Test: MP 09/032 rev.0
Sample: 1
Result: not detected

2nd Test: Newcastle disease: causative agent technique: Real-time PCR method Test: MP 09/032 rev.0
Sample: 1
Result: not detected

SUMMARY OF STRUCTURES THAT HAVE PERFORMED TESTS

Identifiers (id): 1.2 refers to tests carried out at: Section of Ravenna-laboratory serology
Official who authorized the release: Dr. Matthew Frasnelli
Start Date 01/02/2012 tests: test end date 07/02/2012

This test report relates only to the samples tested and may not be reproduced in part but only in its complete form
The samples are removed at the end of the test date except those subject to specific rules
The sampling is not within the responsibility of the laboratory and performed independently from clients / their agents
The individual dates of start and end of the analysis where these are not traceable in the registration documents of the laboratory
the letters MP or NK identifies an internal test method

This and the original paper document were scanned and stored in electronic format as required by the regulations in force

Istituto Zooprofilattico Sperimentale della Lombardia e dell'Emilia-Romagna
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Rapporto di Prova N° **2012/25737/1**
Emesso il 07/02/2012

Spett. Reparto Chimico degli Alimenti
Via P. Fiorini 5
40100 Bologna (BO)

Materiale conferito: **UOVA**
Motivazione del conferimento: Circuiti interni di laboratorio
Numero campioni: 1
Così identificati: 1) EGG C
Data di prelievo: 31/01/2012 Luogo di prelievo: Via P. Fiorini 5 Bologna (BO)
Documento di accompagnamento: 11 CIND 2011
Data di ricezione: 31/01/2012
Data di registrazione: 31/01/2012, presso: Bologna (Reparto chimico degli alimenti)
Proprietario: **Izsler - Reparto Merceologia Degli Alimenti Di Origine Animale** residente in Via Fiorini , 5 - 40100 Bologna (BO)
Sede Operativa: **Reparto Chimico degli Alimenti** Via P. Fiorini 5 - 40100 Bologna (BO)
Conferente: Reparto Chimico degli Alimenti residente in Via P. Fiorini 5 - 40100 Bologna (BO)
Condizioni del materiale conferito: Idoneo
Note all'accettazione: CONSORZIO INCA

RISULTATI DELLE PROVE

Id.

1 *Prova:* Influenza tipo A: agente eziologico *Tecnica:* PCR Real Time *Metodo di Prova:* MP 09/032 rev. 0
Sul campione: 1
Esito: Non dimostrata presenza *Per il campione analizzato*

2 *Prova:* Malattia di Newcastle: agente eziologico *Tecnica:* PCR *Metodo di Prova:* MP 09/035 rev. 0
Sul campione: 1
Esito: Non dimostrata presenza *Per il campione analizzato*

RIEPILOGO DELLE STRUTTURE CHE HANNO ESEGUITO LE PROVE

Gli identificativi (Id.): 1, 2 sono riferiti a prove eseguite presso:
Sezione di Ravenna - Laboratorio Sierologia
Dirigente che ha autorizzato il rilascio: Frasnelli Dott. Matteo

Data inizio prove: 01/02/2012; data fine prove: 07/02/2012

Il presente rapporto di prova riguarda solo i campioni sottoposti a prova e non può essere riprodotto parzialmente ma solo nella sua forma completa.
I campioni vengono eliminati alla data di fine prova ad eccezione di quelli sottoposti a normativa specifica.
Il campionamento non rientra nelle responsabilità del laboratorio; è effettuato autonomamente dai committenti/loro incaricati o da entità terze.
Le singole date di inizio e fine analisi, ove non presenti, sono rintracciabili nei documenti di registrazione del laboratorio.
La sigla MP o NK identifica un 'Metodo di prova interno'.

*** FINE RAPPORTO ***

Questo è l'originale cartaceo del documento la cui minuta è conservata esclusivamente in formato elettronico secondo quanto previsto dalla normativa vigente

Il Dirigente
Fedrizzi Dott. Giorgio