



Certificate of Analysis (CoA)

Product Identifier: Ento-Tf Bovine Transferrin Enriched Growth Media Supplement

Source: Produced recombinantly in *Drosophila melanogaster*

Lot#: Ento-Tf002

Expiration Date: Minimum 6 months from production when stored according to recommendations (see specifications sheet). Full expiration date is currently being determined.

Synonyms: Transferrin, TF, Tf

Sequence (monomer):

MRPAVRALLACAVLGLCLADPERTVRWCTISTHEANKCASFRENVLRILES GPFVSCVKKTSHMDCIKAISNNEADAVTLDGGLVYEAGLK
 PNNLKPVVAEFHGTKDNPQTHYYAVAVVKKD TDFKLNELRGKKSCHTGLGRSAGWNIPMAKLYKELPDPQESIQRAAANFFSASCVPC
 ADQSSFPKLCQLCAGKGTDKACSNHEPYFGYSGAFKLMEGAGDVAFVKHSTVFDNLPN PEDRKNYELLCGDNTRKSVDDYQECYLA
 MVPSHAVVARTVGGKEDVIWELLNHAQE HFGKDKPDNFQLFQSPHGKDLLFKDSADGFLKIPSKMDFELYLGYEYVTALQNLRESKPPD
 SSKDECMVKWCAIGHQERTKCDRWSGFSGGAI ECETAENTE CIAKIMKGEADAMSLDGGYLYIAGKCGLPVLAENYKTEGESCKNTP
 EKGYLAVAVVKTS DANINWNNLKDKKSCHTAVDR TAGWNIPMGLLYSKINNCKFDEFFSAGCAPGSPRNSSLCALCIGSEKGTGKECVPN
 SNERYYG YTGAFRCLVEKGDVAFVKDQT VVIQNTDGN NNEAWAKNLKKNFEVLCKD GTRKPVTD AENCHLARGPNH AVVSRKDKATC
 VEKILNKQ QDDFGKSVTDCTSNFCLFQSN SKDLLFRDDTKCLASIAKKTYSYLGDDYVRAMTNLRQCSTSKLLEACTFHKP

Specifications:

Formulation:

Chemical name	CAS #	Common name	W/V of water %
Recombinant bovine protein	N/A	Protein	<0.0001
Endogenous <i>Drosophila</i> proteins	N/A	Protein	<0.5
Ethylenediaminetetraacetic acid	6381-92-6	EDTA	0.7444
Tris hydrochloride	1185-53-1	Tris-HCl	0.605
Sodium chloride	7647-14-5	NaCl	0.8766

Appearance: Lyophilized powder; dark orange in colour

pH: 8.0

Biological Activity: Determined by cell proliferation assay with C2C12 immortalized myoblast cell line. Lot 002 was tested at a 1:1000 dilution in culture.

Food Safety Analysis:

Important Information: Analyses were performed on reconstituted Ento-Tf Transferrin concentrate in ultrapure water.

Impurity/Contaminant	Test/Analysis	Results	Detection Limit
Endotoxin	LAL Assay, Gel Clot Method	<0.03 EU/mL	0.03 EU/mL
Yeasts and Mould	MFHPB-22	< 5 CFU/mL	< 5 CFU/mL = No counts were detected based on the volume analyzed.
Mycotoxins: Total Aflatoxins	ELISA	1.2 pbb	1 pbb
Mycotoxins: Aflatoxin B1	ELISA	< 2 pbb	2 pbb
Mycotoxins: Ochratoxin A	ELISA	< 1.9 pbb	1.9 pbb
Total Aerobic Microbial Count	MFHPB-18	< 5 CFU/mL	< 5 CFU/mL = No counts were detected based on the volume analyzed.
<i>Salmonella spp.</i>	MFLP-29	Negative	Negative
<i>Listeria monocytogenes</i>	MFLP-28	Negative	Negative
<i>Escherichia coli</i>	MFHPB-34	< 10 CFU/mL	< 10 CFU/mL = No counts were detected based on the volume analyzed.
<i>Enterobacteriaceae</i>	MFLP-43	< 10 CFU/mL	< 10 CFU/mL = No counts were detected based on the volume analyzed
<i>Bacillus cereus</i>	MFLP-42	< 10 CFU/mL	< 10 CFU/mL = No counts were detected based on the volume analyzed

<i>Staphylococcus aureus</i>	MFHPB-21	< 10 CFU/mL	< 10 CFU/mL = No counts were detected based on the volume analyzed
<i>Clostridium perfringens</i>	MFHPB-23	< 5 CFU/mL	< 5 CFU/mL = No counts were detected based on the volume analyzed.
Sulphite reducing anaerobes	AOAC 15213	< 5 CFU/mL	< 5 CFU/mL = No counts were detected based on the volume analyzed.
Heavy Metals Analysis	USP 232/233, US EPA 200.7, metals method (modified) and US EPA 1631.E., Total Mercury analysis (modified).	Pass	Arsenic < 0.005 ppm Cadmium < 0.0025 ppm Lead < 0.00125 ppm Mercury < 0.00125 ppm
Pesticide Residue Testing (96 different residues)	LC-MSMS	Pass	Various limits for each of the 96 residues tested
Wheat (Gluten) Allergen Analysis	ELISA	< 2.5 ppm	2.5 ppm
Egg Allergen Analysis	ELISA	< 2.5 ppm	2.5 ppm
Soy Allergen Analysis	ELISA	< 2.5 ppm	2.5 ppm
Peanut Allergen Analysis	ELISA	< 2.5 ppm	2.5 ppm
Walnut Allergen Analysis	ELISA	< 2.0 ppm	2.0 ppm
Cashew Allergen Analysis	ELISA	< 2.0 ppm	2.0 ppm
Fish Allergen Analysis	ELISA	< 4.0 ppm	4.0 ppm
Crustacean Shellfish Allergen Analysis	ELISA	< 2.0 ppm	2.0 ppm

Analyses were performed by a third party laboratory that is accredited by the Standards Council of Canada under ISO/IEC 17025 and has a Health Canada Establishment Licence for testing GMP products.

Signature: 
Lia Firth, Quality Control Specialist

Date: 18 NOV 2021