

Eurofins Sample Code: 464-2015-09040561
Sample Description: Fermented Cod Liver Oil
Client Sample Code: 29442
PO Number: Credit Card on file
Client Code: QD0006557

Entry Date: 09/04/2015
Reporting Date: 09/23/2015

Green Pasture Products
 attn: Dr. Jie Zhang
 PO Box 486
 O'Neill, NE 68763

Green Pasture Products
 Attn: Dr. Jie Zhang
 PO Box 486
 O'Neill, NE 68763

CERTIFICATE OF ANALYSIS

AR-15-QD-115048-02

This analytical report supersedes AR-15-QD-115048-01.

Test	Result	Completed: 09/09/2015
QD094 - Free Fatty Acids (FFA)		
AOCS Ca 5a-40		
* FFA (Free Fatty Acids)	16.2 %	
QD103 - Peroxide Value (PV)		
AOCS Cd 8-53		
* Peroxide Value - Initial	0.4 meq/kg	
QD01P - p-Anisidine Value		
AOCS Cd 18-90		
* p-Anisidine value	10.8	
QD0AA - Full Fatty Acid Profile - Marine Oils		
AOAC 996.06, AOCS Ce 1b-89		
Fatty Acid Profile	Reported as Fatty Acids	
C4:0 (Butyric Acid)	<0.01 %	
C6:0 (Caproic Acid)	<0.01 %	
C8:0 (Caprylic Acid)	<0.01 %	
C10:0 (Capric Acid)	<0.01 %	
C11:0 (Undecanoic acid)	<0.01 %	
C12:0 (Lauric acid)	<0.01 %	
C14:0 (Myristic acid)	3.95 %	
C14:1 Omega 5 (Myristoleic acid)	0.09 %	
C15:0 (Pentadecenoic acid)	0.20 %	
C15:1 Omega 5 (Pentadecenoic acid)	<0.01 %	
C16:0 (Palmitic acid)	13.85 %	
C16:1 Omega 7 (Palmitoleic acid)	7.48 %	
Total C16:1 (Palmitoleic acid + isomers)	10.44 %	
C16:2 (Hexadecadienoic Acid)	0.68 %	
C16:3 (Hexadecatrienoic Acid)	0.83 %	
C16:4 (Hexadecatetraenoic Acid)	0.43 %	
C17:0 (Margaric acid)	0.09 %	
C17:1 (Heptadecenoic acid)	0.12 %	
C18:0 (Stearic acid)	2.59 %	
C18:1 Omega 9 (Oleic acid)	18.70 %	
C18:1 Omega 7 (Vaccenic Acid)	7.87 %	
Total C18:1 (Oleic acid + isomers)	27.09 %	
C18:2 Omega 6 (Linoleic acid)	0.70 %	

Eurofins Sample Code: 464-2015-09040561

Client Sample Code: 29442

Test	Result	Completed: 09/17/2015
QD0AA - Full Fatty Acid Profile - Marine Oils (Cont.)		
AOAC 996.06, AOCS Ce 1b-89		
Total C18:2 (Linoleic acid + isomers)	1.23 %	
C18:3 Omega 3 (Alpha Linolenic Acid)	0.50 %	
C18:3 Omega 6 (Gamma Linolenic acid)	0.12 %	
Total C18:3 (Linolenic acid + isomers)	0.62 %	
C18:4 Omega 3 (Octadecatetraenoic acid)	2.22 %	
C20:0 (Arachidic acid)	0.05 %	
C20:1 Omega 9 (Gadoleic acid)	1.08 %	
Total C20:1 (Gadoleic acid + isomers)	3.76 %	
C20:2 Omega 6	0.19 %	
C20:3 Omega 3	0.06 %	
C20:3 Omega 6	0.04 %	
Total C20:3 (Eicosatrienoic acid)	0.10 %	
C20:4 Omega 3	0.44 %	
C20:4 Omega 6 (Arachidonic acid)	0.27 %	
Total C20:4 (Eicosatetraenoic acid)	0.72 %	
C20:5 Omega 3 (Eicosapentaenoic acid)	13.49 %	
C21:5 Omega 3 (Heneicosapentaenoic acid)	0.57 %	
C22:0 (Behenic acid)	<0.01 %	
C22:1 Omega 9 (Erucic acid)	0.32 %	
Total C22:1 (Erucic acid + isomers)	2.84 %	
C22:2 Omega 6 (Docosadienoic acid)	0.04 %	
C22:3 Omega 3 (Docosatrienoic acid)	<0.01 %	
C22:4 Omega 6 (Docosatetraenoic acid)	<0.01 %	
C22:5 Omega 3	0.39 %	
C22:5 Omega 6	0.05 %	
C22:5 Total (Docosapentaenoic acid)	0.44 %	
C22:6 Omega 3 (Docosahexaenoic acid)	5.15 %	
C24:0 (Lignoceric acid)	<0.01 %	
C24:1 Omega 9 (Nervonic acid)	0.17 %	
Total C24:1 (Nervonic acid + isomers)	0.32 %	
Total Omega 3 Isomers	22.83 %	
Total Omega 5 Isomers	0.09 %	
Total Omega 6 Isomers	1.42 %	
Total Omega 7 Isomers	15.35 %	
Total Omega 9 Isomers	20.26 %	
Total Saturated Fatty Acids	20.73 %	
Total Monounsaturated Fatty Acids	44.24 %	
Total Polyunsaturated Fatty Acids	26.47 %	
Total Trans Fatty Acids	0.65 %	
Total Fatty Acids	92.09 %	
Total Fat as Triglycerides	96.28 %	

**The test result is covered by our current A2LA accreditation.*

Eurofins Sample Code: 464-2015-09040561**Client Sample Code:** 29442Respectfully Submitted,
Eurofins Scientific Inc.

David Gross

Support Services Manager

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All results are reported on an "As Received" basis unless otherwise stated.
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Eurofins Scientific, Inc. Measurement of Uncertainty can be obtained upon request.

Biological Testing
Cert:3329:01Chemical Testing
Cert:2927:01

Eurofins Sample Code: 464-2015-09040562
Sample Description: Fermented Cod Liver Oil
Client Sample Code: 14651
PO Number: Credit Card on file
Client Code: QD0006557

Entry Date: 09/04/2015
Reporting Date: 09/23/2015

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CERTIFICATE OF ANALYSIS

AR-15-QD-115273-02

This analytical report supersedes AR-15-QD-115273-01.

Test	Result	Completed: 09/09/2015
QD094 - Free Fatty Acids (FFA)		
AOCS Ca 5a-40		
* FFA (Free Fatty Acids)	21.1 %	
QD103 - Peroxide Value (PV)		
AOCS Cd 8-53		
* Peroxide Value - Initial	1.5 meq/kg	
QD01P - p-Anisidine Value		
AOCS Cd 18-90		
* p-Anisidine value	12.7	
QD0AA - Full Fatty Acid Profile - Marine Oils		
AOAC 996.06, AOCS Ce 1b-89		
Fatty Acid Profile	Reported as Fatty Acids	
C4:0 (Butyric Acid)	<0.01 %	
C6:0 (Caproic Acid)	<0.01 %	
C8:0 (Caprylic Acid)	<0.01 %	
C10:0 (Capric Acid)	<0.01 %	
C11:0 (Undecanoic acid)	<0.01 %	
C12:0 (Lauric acid)	<0.01 %	
C14:0 (Myristic acid)	3.82 %	
C14:1 Omega 5 (Myristoleic acid)	0.09 %	
C15:0 (Pentadecenoic acid)	0.21 %	
C15:1 Omega 5 (Pentadecenoic acid)	<0.01 %	
C16:0 (Palmitic acid)	11.28 %	
C16:1 Omega 7 (Palmitoleic acid)	7.14 %	
Total C16:1 (Palmitoleic acid + isomers)	10.29 %	
C16:2 (Hexadecadienoic Acid)	0.66 %	
C16:3 (Hexadecatrienoic Acid)	0.94 %	
C16:4 (Hexadecatetraenoic Acid)	0.41 %	
C17:0 (Margaric acid)	0.10 %	
C17:1 (Heptadecenoic acid)	0.14 %	
C18:0 (Stearic acid)	2.12 %	
C18:1 Omega 9 (Oleic acid)	17.91 %	
C18:1 Omega 7 (Vaccenic Acid)	7.52 %	
Total C18:1 (Oleic acid + isomers)	26.21 %	
C18:2 Omega 6 (Linoleic acid)	0.88 %	

Eurofins Sample Code: 464-2015-09040562

Client Sample Code: 14651

Test	Result	Completed: 09/17/2015
QD0AA - Full Fatty Acid Profile - Marine Oils (Cont.)		
AOAC 996.06, AOCS Ce 1b-89		
Total C18:2 (Linoleic acid + isomers)	1.51 %	
C18:3 Omega 3 (Alpha Linolenic Acid)	0.59 %	
C18:3 Omega 6 (Gamma Linolenic acid)	0.12 %	
Total C18:3 (Linolenic acid + isomers)	0.71 %	
C18:4 Omega 3 (Octadecatetraenoic acid)	2.16 %	
C20:0 (Arachidic acid)	0.07 %	
C20:1 Omega 9 (Gadoleic acid)	1.45 %	
Total C20:1 (Gadoleic acid + isomers)	4.73 %	
C20:2 Omega 6	0.26 %	
C20:3 Omega 3	0.08 %	
C20:3 Omega 6	0.06 %	
Total C20:3 (Eicosatrienoic acid)	0.14 %	
C20:4 Omega 3	0.50 %	
C20:4 Omega 6 (Arachidonic acid)	0.34 %	
Total C20:4 (Eicosatetraenoic acid)	0.84 %	
C20:5 Omega 3 (Eicosapentaenoic acid)	13.83 %	
C21:5 Omega 3 (Heneicosapentaenoic acid)	0.59 %	
C22:0 (Behenic acid)	0.02 %	
C22:1 Omega 9 (Erucic acid)	0.44 %	
Total C22:1 (Erucic acid + isomers)	3.79 %	
C22:2 Omega 6 (Docosadienoic acid)	0.05 %	
C22:3 Omega 3 (Docosatrienoic acid)	<0.01 %	
C22:4 Omega 6 (Docosatetraenoic acid)	0.02 %	
C22:5 Omega 3	0.57 %	
C22:5 Omega 6	0.05 %	
C22:5 Total (Docosapentaenoic acid)	0.63 %	
C22:6 Omega 3 (Docosahexaenoic acid)	5.74 %	
C24:0 (Lignoceric acid)	<0.01 %	
C24:1 Omega 9 (Nervonic acid)	0.22 %	
Total C24:1 (Nervonic acid + isomers)	0.37 %	
Total Omega 3 Isomers	24.06 %	
Total Omega 5 Isomers	0.09 %	
Total Omega 6 Isomers	1.77 %	
Total Omega 7 Isomers	14.66 %	
Total Omega 9 Isomers	20.02 %	
Total Saturated Fatty Acids	17.61 %	
Total Monounsaturated Fatty Acids	44.95 %	
Total Polyunsaturated Fatty Acids	28.18 %	
Total Trans Fatty Acids	0.97 %	
Total Fatty Acids	91.71 %	
Total Fat as Triglycerides	95.84 %	

**The test result is covered by our current A2LA accreditation.*

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