

TOCOPHEROLS AND TOCOTRIENOLS

Research and analytical services.



**LIPID ANALYTICAL
LABORATORIES INC.**

ABOUT LIPID ANALYTICAL LABS INC.

Lipid Analytical Laboratories was established in 1991 on the work of Dr. Bruce Holub (Human Health and Nutritional Sciences, University of Guelph, Professor Emeritus) with a focus on the advancement Omega-3 Fatty Acids and their associated health benefits.

Lipid Analytical Laboratories is the only commercial laboratory in Canada specializing exclusively in the analyses of lipids (including different lipid forms including but not limited to individual neutral lipids, phospholipids, sterols, amongst others) and their Fatty Acid components.

Our particular specialty is the analyses and quantitation of various food products and nutritional supplements for their Omega-3 Fatty Acid content.

Lipid Analytical Laboratories routinely provides lipid/fatty acid/omega-3 analyses in support of various academic, governmental, and commercial trials.

As such, Lipid Analytical Laboratories along with its analytical team members have been named as co-authors and officially acknowledged in a number of peer-reviewed papers which have been published in leading academic journals.



METHOD SUMMARY

Gas chromatography offers qualitative and quantitative analysis of Vitamin E and its various forms, collectively referred to as Tocopherols and Tocotrienols. The aim of sample preparation is to isolate the Tocopherol/Tocotrienol fraction and to convert all conjugated or esterified products to prepare for GC analysis. Vitamin E and its various isoforms are extracted in the presence of an internal standard and are then concentrated in the unsaponifiable fraction. After saponification, the unsaponifiable material including the Tocopherols/Tocotrienol portion is extracted using a nonpolar solvent. Lastly, derivatization is performed using a basic silylation procedure. The resulting Tocopherols/Tocotrienols are then analyzed on an Agilent GC-FID chromatograph against the internal standard.

Reference: In-House Method

Analysis Platform: Agilent 6890, 7890 GC-FID

Data Reported: The amount of tocopherol / tocotrienol in mg/gram, % by weight

Analytical Targets:

- Alpha-Tocopherol
- Beta-Tocopherol
- Delta-Tocopherol
- Gamma-Tocopherol
- Vit-E Acetate
- Vit-E Succinate
- Alpha-Tocotrienols
- Beta-Tocotrienols
- Delta-Tocotrienols
- Gamma-Tocotrienols

Sample Requirements: Please contact us with regards to your specific sample type.

Email: info@lipidanalytical.com



WHY WORK WITH US?

- Over 30 years of experience.
- Fast Sample turn-around-time.
- Accreditation for ISO17025 in progress with Standards Council of Canada (SCC) as of 2021.
- Assisted with numerous Commercial/Academic/Governmental Trials.



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