



CHEM SOLUTIONS

ANALYTICAL LABORATORIES

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CHEMICAL TESTING
LABORATORY RECOGNIZED
BY THE IOC
1.12.2025- 30.11.2026
TYPE B & C



Testing
Cert. No 964

CERTIFICATE OF ANALYSIS: 24530

Personal Data		Sample Data	
Company:	Akinita Nikolaou Karantoki LTD - Akaki Grove	Sample:	Extra Virgin Olive Oil
First Name last Name:	Helena Christoforos	Sample Code:	24530
email:	akaki@karantokis.com	Date of Receipt:	30/12/2025
		Date of Analysis:	07/01/2026 – 15/01/2026
		Condition of Sample:	Acceptable
		Sampling Responsible:	Client
		Description:	Sealed bottle Olive Oil no 1

Determination	Units	Result	Limit ¹	Method of Analysis
Acidity	% w/w oleic acid	0.17	M 0.8	COI/T.20/Doc. No 34
Absorbance in UV				
K ₂₇₀	-	0.130	M 0.22	COI/T.20/Doc. No 19
K ₂₃₂	-	1.864	M 2.50	COI/T.20/Doc. No 19
ΔK	-	-0.007	M 0.01	COI/T.20/Doc. No 19
Peroxide Value	meq O ₂ /kg	7.8	M 20	COI/T.20/Doc. No 35
Fatty Acids				
C14:0 (MYRISTIC)	%	0.01	M 0.03	COI/T.20/Doc. No 33
C16:0 (PALMITIC)	%	14.61	7.0-20.0	COI/T.20/Doc. No 33
C16:1 (PALMITOLEIC)	%	1.09	0.3-3.5	COI/T.20/Doc. No 33
C17:0 (HEPTADECANOIC)	%	0.10	≤ 0.4	COI/T.20/Doc. No 33
C17:1 (HEPTADECENOIC)	%	0.14	≤ 0.6	COI/T.20/Doc. No 33
C18:0 (STEARIC)	%	3.01	0.5-5.0	COI/T.20/Doc. No 33
C18:1 (OLEIC)	%	73.12	55.0-85.0	COI/T.20/Doc. No 33
C18:2 (LINOLEIC)	%	6.10	2.5-21.0	COI/T.20/Doc. No 33
C18:3 (LINOLENIC)	%	0.86	M 1.0	COI/T.20/Doc. No 33
C20:0 (ARACHIDIC)	%	0.48	M 0.6	COI/T.20/Doc. No 33
C20:1 (EICOSENOIC)	%	0.28	M 0.5	COI/T.20/Doc. No 33
C22:0 (BEHENIC)	%	0.13	M 0.2	COI/T.20/Doc. No 33
C22:1 (ERUCIC)	%	0.00	-	COI/T.20/Doc. No 33
C24:0 (LIGNOCERIC)	%	0.07	M 0.2	COI/T.20/Doc. No 33
trans C18:1	%	0.021	M 0.05	COI/T.20/Doc. No 33
trans C18:2+ C18:3	%	0.009	M 0.05	COI/T.20/Doc. No 33

¹ Analytical data within limits of E.U. regulations 2022/2104 & 2022/2105 for Extra Virgin Olive Oil as amended and valid.
(M: Maximum, m: minimum)

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Personal Data		Sample Data	
Company:	Akinita Nikolaou Karantoki LTD - Akaki Grove	Sample:	Extra Virgin Olive Oil
First Name last Name:	Helena Christoforos	Sample Code:	24530
email:	akaki@karantokis.com	Date of Receipt:	30/12/2025
		Date of Analysis:	07/01/2026 – 15/01/2026
		Condition of Sample:	Acceptable
		Sampling Responsible:	Client
		Description:	Sealed bottle Olive Oil no 1

Determination	Units	Result	Limit ¹	Method of Analysis
Total phenolic compounds	mg/Kg	652.6	-	COI /T.20/Doc. No 29/Rev 2/METHOD 2*
Hydroxytyrosol	mg/Kg	24.2	-	COI /T.20/Doc. No 29/Rev 2/METHOD 2*
Tyrosol	mg/Kg	28.1	-	COI /T.20/Doc. No 29/Rev 2/METHOD 2*
Vanillic acid	mg/Kg	0.6	-	COI /T.20/Doc. No 29/Rev 2/METHOD 2*
Vanillin	mg/Kg	0.1	-	COI /T.20/Doc. No 29/Rev 2/METHOD 2*
p-Coumaric acid	mg/Kg	0.2	-	COI /T.20/Doc. No 29/Rev 2/METHOD 2*
Hydroxytyrosol acetate	mg/Kg	16.3	-	COI /T.20/Doc. No 29/Rev 2/METHOD 2*
Ferulic acid	mg/Kg	3.29	-	COI /T.20/Doc. No 29/Rev 2/METHOD 2*
DDOA ^a	mg/Kg	27.6	-	COI /T.20/Doc. No 29/Rev 2/METHOD 2*
Isomer of AOA ^c	mg/Kg	45.9	-	COI /T.20/Doc. No 29/Rev 2/METHOD 2*
DDLA ^b	mg/Kg	80.3	-	COI /T.20/Doc. No 29/Rev 2/METHOD 2*
Pinoresinol	mg/Kg	5.7	-	COI /T.20/Doc. No 29/Rev 2/METHOD 2*
Cinnamic acid + 1-Acetoxypinoresinol	mg/Kg	68.9	-	COI /T.20/Doc. No 29/Rev 2/METHOD 2*
Luteolin	mg/Kg	5.11	-	COI /T.20/Doc. No 29/Rev 2/METHOD 2*
AOA ^c	mg/Kg	276.2	-	COI /T.20/Doc. No 29/Rev 2/METHOD 2*
Apigenin	mg/Kg	0.72	-	COI /T.20/Doc. No 29/Rev 2/METHOD 2*
AOL ^d	mg/Kg	69.4	-	COI /T.20/Doc. No 29/Rev 2/METHOD 2*
Hydroxytyrosol, tyrosol and their derivatives^e	mg/20 gr	11.4	m ² 5.0	COI /T.20/Doc. No 29/Rev 2/METHOD 2*

¹ Analytical data within limits of E.U. regulations 2022/2104 & 2022/2105 for Extra Virgin Olive Oil as amended and valid. (M: Maximum, m: minimum). ²EU Regulation 432/2012

^a:dialdehydic form decarboxymethyl oleuropein aglycon, ^bdialdehydic form decarboxymethyl ligstroside aglycon, ^c: aldehydic form oleuropein aglycon ^d: aldehydic form ligstroside aglycon. ^e Sum of Hydroxytyrosol, Tyrosol, Hydroxytyrosol acetate, DDOA, Isomer of AOA, DDLA, AOA, AOL.

DATE OF ISSUE: 16/01/2026

On behalf of the laboratory



Michalis Tampakopoulos
Chemist, M.Sc.

End of the Report

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CERTIFICATE OF ANALYSIS: 24529

Personal Data		Sample Data	
Company:	Akinita Nikolaou Karantoki	Sample:	Extra Virgin Olive Oil
	LTD - Akaki Grove	Sample Code:	24529
First Name last Name:	Helena Christoforos	Date of Receipt:	30/12/2025
email:	akaki@karantokis.com	Date of Analysis:	07/01/2026 – 13/01/2026
		Condition of Sample:	Acceptable
		Sampling Responsible:	Client
		Description:	Sealed bottle Olive Oil no 2

Determination	Units	Result	Limit ¹	Method of Analysis
Acidity	% w/w oleic acid	0.19	M 0.8	COI/T.20/Doc. No 34
Absorbance in UV				
K ₂₇₀	-	0.171	M 0.22	COI/T.20/Doc. No 19
K ₂₃₂	-	2.074	M 2.50	COI/T.20/Doc. No 19
ΔK	-	-0.012	M 0.01	COI/T.20/Doc. No 19
Peroxide Value	meq O ₂ /kg	7.4	M 20	COI/T.20/Doc. No 35
Fatty Acids				
C14:0 (MYRISTIC)	%	0.01	M 0.03	COI/T.20/Doc. No 33
C16:0 (PALMITIC)	%	14.15	7.0-20.0	COI/T.20/Doc. No 33
C16:1 (PALMITOLEIC)	%	0.98	0.3-3.5	COI/T.20/Doc. No 33
C17:0 (HEPTADECANOIC)	%	0.07	≤ 0.4	COI/T.20/Doc. No 33
C17:1 (HEPTADECENOIC)	%	0.09	≤ 0.6	COI/T.20/Doc. No 33
C18:0 (STEARIC)	%	3.18	0.5-5.0	COI/T.20/Doc. No 33
C18:1 (OLEIC)	%	72.84	55.0-85.0	COI/T.20/Doc. No 33
C18:2 (LINOLEIC)	%	6.72	2.5-21.0	COI/T.20/Doc. No 33
C18:3 (LINOLENIC)	%	0.89	M 1.0	COI/T.20/Doc. No 33
C20:0 (ARACHIDIC)	%	0.54	M 0.6	COI/T.20/Doc. No 33
C20:1 (EICOSENOIC)	%	0.29	M 0.5	COI/T.20/Doc. No 33
C22:0 (BEHENIC)	%	0.16	M 0.2	COI/T.20/Doc. No 33
C22:1 (ERUCIC)	%	0.00	-	COI/T.20/Doc. No 33
C24:0 (LIGNOCERIC)	%	0.08	M 0.2	COI/T.20/Doc. No 33
trans C18:1	%	0.021	M 0.05	COI/T.20/Doc. No 33
trans C18:2+ C18:3	%	0.009	M 0.05	COI/T.20/Doc. No 33

¹ Analytical data within limits of E.U. regulations 2022/2104 & 2022/2105 for Extra Virgin Olive Oil as amended and valid.
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Personal Data		Sample Data	
Company:	Akinita Nikolaou Karantoki LTD - Akaki Grove	Sample:	Extra Virgin Olive Oil
First Name last Name:	Helena Christoforos	Sample Code:	24529
email:	akaki@karantokis.com	Date of Receipt:	30/12/2025
		Date of Analysis:	07/01/2026 – 13/01/2026
		Condition of Sample:	Acceptable
		Sampling Responsible:	Client
		Description:	Sealed bottle Olive Oil no 2

Determination	Units	Result	Limit ¹	Method of Analysis
Total phenolic compounds	mg/Kg	572.3	-	COI /T.20/Doc. No 29/Rev 2/METHOD 2*
Hydroxytyrosol	mg/Kg	7.5	-	COI /T.20/Doc. No 29/Rev 2/METHOD 2*
Tyrosol	mg/Kg	6.8	-	COI /T.20/Doc. No 29/Rev 2/METHOD 2*
Vanillic acid	mg/Kg	0.3	-	COI /T.20/Doc. No 29/Rev 2/METHOD 2*
Vanillin	mg/Kg	0.1	-	COI /T.20/Doc. No 29/Rev 2/METHOD 2*
p-Coumaric acid	mg/Kg	0.1	-	COI /T.20/Doc. No 29/Rev 2/METHOD 2*
Hydroxytyrosol acetate	mg/Kg	11.6	-	COI /T.20/Doc. No 29/Rev 2/METHOD 2*
Ferulic acid	mg/Kg	0.94	-	COI /T.20/Doc. No 29/Rev 2/METHOD 2*
DDOA ^a	mg/Kg	91.2	-	COI /T.20/Doc. No 29/Rev 2/METHOD 2*
Isomer of AOA ^c	mg/Kg	49.9	-	COI /T.20/Doc. No 29/Rev 2/METHOD 2*
DDLA ^b	mg/Kg	109.4	-	COI /T.20/Doc. No 29/Rev 2/METHOD 2*
Pinoresinol	mg/Kg	5.5	-	COI /T.20/Doc. No 29/Rev 2/METHOD 2*
Cinnamic acid + 1-Acetoxypinoresinol	mg/Kg	68.5	-	COI /T.20/Doc. No 29/Rev 2/METHOD 2*
Luteolin	mg/Kg	3.84	-	COI /T.20/Doc. No 29/Rev 2/METHOD 2*
AOA ^c	mg/Kg	173.3	-	COI /T.20/Doc. No 29/Rev 2/METHOD 2*
Apigenin	mg/Kg	0.29	-	COI /T.20/Doc. No 29/Rev 2/METHOD 2*
AOL ^d	mg/Kg	43.0	-	COI /T.20/Doc. No 29/Rev 2/METHOD 2*
Hydroxytyrosol, tyrosol and their derivatives^e	mg/20 gr	9.9	m ² 5.0	COI /T.20/Doc. No 29/Rev 2/METHOD 2*

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Michalis Tampakopoulos
Chemist, M.Sc.

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