



ALNuMed GmbH, Am Aubach 5, 95448 Bayreuth

Dr. Engling und Siemers GbR
Egelsee-Schlag 26
23911 Ziethen

Analysis Report

Order Number:	22-17-1	ALNuMed-ID: 008397
Sample:	EVOO	
Customer Sample ID:	Olivenöl	
Customer Information:		
Type of Analysis:	ALNuMed-EVOO-Screening by NMR (internal method): multi-parameter analysis (1.601) <input checked="" type="checkbox"/>	
Sample Information:		
Arrived:	10/03/2017, 15:00	
Sample-taking:	by customer (no details available)	
Packaging:	Glass bottle	with seal: <input type="checkbox"/>
Remark:	ca. 100 mL	
Temperature at arrival:	room temperature (RT) if other:	Storage: RT
Sample Preparation:	standard preparation for edible oils (Regular Service)	
Protocol/SOP:		
Measurement:		
Date:	13/03/2017	
Instrument:	Bruker 400 MHz Food-Screener (10106673)	<input checked="" type="checkbox"/> other <input type="checkbox"/>
Parameter Set:	Oil Standard Measurement	<input checked="" type="checkbox"/> other <input type="checkbox"/>
Operator:	BZ	
Data Evaluation:	NMR-Quantification EVOO Version1.0	<input checked="" type="checkbox"/> other <input type="checkbox"/>
	Qualitative spectral analysis	<input checked="" type="checkbox"/> other <input type="checkbox"/>
Analysis Result:		
Quantitative results:		
C16:0 palmitic acid	8,8 %	C18:0 stearic acid 6,5 %
C18:1 oleic acid	75 %	C18:2 linoleic acid 6,8 %
C18:3 linolenic acid	0,8 %	iodine value 83
Trans fatty acids	3,1 %	peroxide value 7,08 meqO2/kg
Free fatty acids	0,5 %	K232 2,03
Qualitative analysis:		
Oleuropein/Ligstroside:	++	
Oleocanthal:	+++	
Oxidative markers:	no significant hint for oxidation	
Legend:	- = not detected; + = detected (concentration in lower third of sample distribution); ++ = detected (concentration in middle third of sample distribution); +++ detected (concentration in upper third of sample distribution);	

Continued on page 2.

ALNuMed GmbH – Analyse-Labor für Nahrungsmittel und Medizinprodukte

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Stefanie Hellbach
Prof. Dr. Paul Rösch
Prof. Dr. Stephan Schwarzinger
UID: DE274 278 331

Comment/Interpretation:

Authenticity: According to screening results obtained and with respect to the information provided by the customer the sample investigated is judged as authentic

Sample shows no significant deviation from reference dataset (n = 166 commercial samples)

Explanatory Information:

This report is valid only for the investigated samples with the sample IDs provided by the customer. Any accompanying information and/or documentation are part of this report and subject to the following conditions. Note that analytical results might be subject to expert interpretation. In particular, whether a sample is authentic or not can only be judged by considering all information available from the analysis conducted. In case statistical models are part of the analysis please note that no conclusions can be deduced for varieties, production methods, and/or geographic origins for which no model is available for the given matrix. Supplying information about variety, product type, and geographic origin facilitates interpretation of the results. Inconsistency of declared origin/variety with analysis results may be an indicator for adulteration (subject to expert interpretation). ALNuMed cannot be held responsible for deviations resulting from incomplete or wrong information about the sample.

Analysis was carried out according to industry standards. Sample preparation and measurements are performed by ALNuMed GmbH at its laboratory in Bayreuth unless services are provided by subcontractors, which is indicated. Data interpretation is performed by ALNuMed GmbH.

Interpretation of the data is conducted in accordance with industry standards, scientific literature as well as results from own research and data at our disposal. Where appropriate judgement is done with respect to legal references, which will be indicated in the report.

Abbreviations:

n. a. = not available / not applicable

n. d. = not determined

^{U)} indicating service carried out by a subcontractor.

^{aU)} indicating service carried out by a subcontractor accredited for the method.

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Analysis Approved:

20/03/2017



Felix Brauer, MSc. (Laboratory Manager)

End of Analysis Report

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