



HELLENIC REPUBLIC  
National and Kapodistrian University of Athens  
FACULTY OF PHARMACY  
Department of Pharmacognosy and Natural Products Chemistry  
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## CERTIFICATE OF OLIVE OIL POLYPHENOLS ANALYSIS

Description	Olive oil sample
Producer / Distributor	SPILIAKOPOULOU MARIA & CO
Origin	OLYMPIA
Type of Cultivation	ORGANIC
Date of reception	13/02/2018
Date of analysis	22/02/2018
Packaging	GLASS BOTTLE
ANALYSIS*	<ol style="list-style-type: none"> <li>1. Extraction/Sample preparation</li> <li>2. Quantitative determination of Hydroxytyrosol (HT) and Tyrosol (T) using the HPLC-DAD technique, according to the IOC method with some modifications (<a href="http://www.internationaloliveoil.org/documents/viewfile/4141-met29eng">http://www.internationaloliveoil.org/documents/viewfile/4141-met29eng</a>).</li> <li>3. Semi-quantitative determination of Oleacein (OLEA) and Oleocanthal (OLEO) using the HPLC-DAD technique.</li> <li>4. Determination of HT, T and their derivatives /Kg Olive oil, after acidic hydrolysis of the biophenols from olive oil extract using the analytical technique of HPLC-DAD<sup>[1]</sup>.</li> </ol>

\*Experimental details: available upon request. [1] Mastralexi et al., 2014. Addressing analytical requirements to support health claims on "olive oil polyphenols" (EC Regulation 432/2012), *J Agric Food Chem*, 26;62(12):2459-61.

## RESULTS

QUANTITATIVE AND SEMI-QUANTITATIVE DETERMINATION OF PHENOLS (HPLC-DAD)					
mg /Kg Olive oil				ACIDIC HYDROLYSIS	
HT	T	OLEA	OLEO	Total mg HT & T /Kg Olive oil	Total mg HT, T and their derivatives /Kg Olive oil <sup>[1]</sup>
9,78	6,62	111	108	459	1046

HT: Hydroxytyrosol, T: Tyrosol, OLEA: Oleacein, OLEO: Oleocanthal

## Comments

Based on the results of olive oil analysis, the specific olive oil sample analyzed on the above-mentioned date, was found to contain **1046 mg HT, T and their derivatives /Kg olive oil**. Thus, it can be concluded that the analyzed olive oil sample meets the specifications of the **EU regulation 432/2012** concerning the health claim on olive oil polyphenols ([http://www.efsa.europa.eu/sites/default/files/scientific\\_output/files/main\\_documents/2033.pdf](http://www.efsa.europa.eu/sites/default/files/scientific_output/files/main_documents/2033.pdf)).



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PHARMAGNOSE ΒΙΟΤΕΧΝΟΛΟΓΙΚΗ ΑΕ  
ΥΠΗΡΕΣΙΕΣ ΕΡΕΥΝΑΣ & ΠΕΙΡΑΜΑΤΙΚΗΣ ΑΝΑΠΤΥΞΗΣ  
ΚΕΝΤΡ.: ΠΑΠΑΘΑΝΑΣΙΟΥ 24 - ΧΑΛΚΙΔΑ Τ.Κ. 34100  
ΥΠΟΚ.: 57<sup>η</sup> ΧΑΜ. Ε.Ο. ΑΘΗΝΩΝ-ΛΑΜΙΑΣ Τ.Κ. 32011 ΟΙΝΟΦΥΤΩΝ  
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