



World Olive Center for Health			Athens:	30/11/2021
76 Imittou St. 5th floor 11634, Pagkrati, Athens Tel: 2107010131 info@worldolivecenter.com		Attens: Cert. Num:	C2122-00410	
CERTIFICATE OF ANALYSIS				
Brand Name:	PAMAKO BLEND		Analysis Date:	26/11/2021
Owner:	ANDROULAKIS EFTYCHIOS		·	
Variety:	TSOUNATI			
Origin:	AGRILES CHANIA CRETE GRE	ECE		
Harvesting Period: Oil Press:	October 2021		Production Date	e: 10/10/2021
Oil Press:	ANDROULAKIS EFTYCHIOS			
Chemical Analysis				
Oleocanthal		34	1 mg/Kg	
Oleacein		235	5 mg/Kg	
Oleocanthal <mark>+</mark> Oleacein (index D1) 576		6 mg/Kg		
Ligstroside <mark>ag</mark> lycon (monoaldehyde form) 179		9 mg/Kg		
Oleuropein <mark>ag</mark> lycon (monoaldehyde form) 199		9 mg/Kg		
Ligstroside <mark>ag</mark> lycon (dialdehyde form)* 423		3 mg/Kg		
Oleuropein aglycon (dialdehyde form)** 126		6 mg/Kg		
Free Tyrosol <5		5 mg/Kg		
Total tyrosol derivatives		943	3 mg/Kg	
Totalhydroxytyrosol derivatives		0 mg/Kg		
Total polyphenols analyzed		3 mg/Kg		
	0	LIVE		

Comments:

The levels of oleocanthal and oleacein are higher than the average values (135 and 105 mg/Kg respectively) of the sample included in the international study performed at the University of California, Davis.

The daily consumption of 20 g of the analyzed olive oil provides 30,07mg of hydroxytyrosol, tyrosol or their derivatives. Olive oils that contain >5 mg per 20 gr belong to the category of oils that protect the blood lipids from oxidative stress according to the Regulation 432/2012 of the European Union.

It should be noted that oleocanthal and oleacein present important biological activity and they have been related with anti-inflammatory, antioxidant, cardioprotective and neuroprotective activity.

The chemical analysis was performed according to the method that has been submitted to EFET and published in J Agric Food Chem, 2012, 60,11696, J Agric Food Chem, 2014,62, 600-607 & Molecules, 2020, 25, 2449. *Oleomissional+Oleuropeindial **Ligstrodial+Oleokoronal

Magiatis Prokopios

PROKOPIOS MAGIATIS ASSOCIA - TROFESSOR UNIVERSITY OF ATHENS FACULTY DEPARTMACY DEPARTMENT OF PHARMACOGNOSY AND NATURA 90 MILITS CHEMISTRY