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Athens, 13/10/2020
Cert.Num: 2021-C00068

CERTIFICATE OF ANALYSIS

Analysis Date: 13/10/2020

Owner: LIOKAREAS A.E.

Variety: KALAMON
Origin: MESSINIA GREECE

Harvest Period: October 2020

Chemical Analysis

Oleocanthal	1.201	mg/Kg
Oleacein	322	mg/Kg
Oleocanthal + Oleacein (index D1)	1.523	mg/Kg
Ligstroside aglycon (monoaldehyde form)	53	mg/Kg
Oleuropein aglycon (monoaldehyde form)	24	mg/Kg
Ligstroside aglycon (dialdehyde form)	<5	mg/Kg
Oleuropein aglycon (dialdehyde form)	<5	mg/Kg
Total tyrosol derivatives	1.254	mg/Kg
Total hydroxytyrosol derivatives	346	mg/Kg
Total polyphenols analyzed	1.600	mg/Kg

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 32.0 mg 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 published in J.Agric. Food Chem., 2012, 60 (47) , pp 11696-11703, J.Agric. Food Chem., 2014 62 (3) , 600-607 and OLIVAE, 2015, 122, 22-33.

*Oleomissional+Oleuropeindial **Ligstrodial+Oleokoronal

Magiatis Prokopios

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Vanillic acid + Caffeic acid	0.5
Vanillin	1.3
p-Coumaric Acid	1.1
Hydroxytyrosol Acetate	0.0
Ferulic acid	0.0
o-Coumaric Acid	0.0
Decarb. oleuro aglycone, Ox Al	3.5
Oleacein	157.4
Oleuropein	2.0
Oleuro aglycone, Al	0.8
Tyrosol Acetate	0.0
Decarb. ligstr aglycone, Ox Al	131.7
Oleocanthal	292.3
Pinoresinol + 1 Acetoxy pinore	10.9
Cinnamic Acid	5.1
Ligstroside aglycone, Al	6.5
Oleuro aglycone, Ox Al Hy	9.2
Luteolin	1.4
Oleuro aglycone, Al Hy	20.1
Ligstro aglycone, Ox Al Hy	0.8
Apigenin	1.8
Methyl-Luteolin	0.0
Ligstroside aglycone, Al Hy	2.7
Total Biophenols - HPLC	652.0

Comment: Antioxidants added.

Natalia Ruiz
Laboratory Manager