

**World Olive Center for Health**

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**Athens: 24/11/2022****Cert. Num: C2223-00350****CERTIFICATE OF ANALYSIS**

**Brand Name:** PAMAKO BLEND  
**Owner:** ANDROULAKIS EFTYCHIOS  
**Variety:** TSOUNATI-KORONEIKI  
**Origin:** AGRILES CHANIA GREECE  
**Harvesting Period:** October 2022  
**Oil Mill:** ANDROULAKIS EFTYCHIOS

**Analysis Date: 23/11/2022****Production Date:****Chemical Analysis**

Oleocanthal	231	mg/Kg
Oleacein	194	mg/Kg
Oleocanthal+Oleacein (index D1)	424	mg/Kg
Ligstroside aglycon (monoaldehyde form)	90	mg/Kg
Oleuropein aglycon (monoaldehyde form)	177	mg/Kg
Ligstroside aglycon (dialdehyde form)*	542	mg/Kg
Oleuropein aglycon (dialdehyde form)**	282	mg/Kg
Free Tyrosol	<5	mg/Kg
Total tyrosol derivatives	863	mg/Kg
Total hydroxytyrosol derivatives	653	mg/Kg
Total polyphenols analyzed	1.516	mg/Kg

**Comments:**

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

The daily consumption of 20 g of the analyzed olive oil provides 30,33mg 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 at the National and Kapodistrian University of Athens 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 & Molecules 2020, 25, 2449.

The results relate to the analyzed sample.

\*Oleomissional+Oleuropeindial \*\*Ligstrodiol+Oleokoronal

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