

## **Anti-inflammatory Property of Hydroxytyrosol, minor component from Extra Virgin Olive Oil on Human Monocyte Cells**

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Inflammatory response in some pathologies and chronic diseases is the responsible of many disorders like an increment of free radicals that cause an oxidative stress.

We study the participation of minor components from Extra Virgin Olive Oil (EVOO) in the healthy properties attributed to EVOO. In this poster communication we pretend to show the anti-inflammatory action of Hydroxytyrosol, one of the most abundant polyphenol present in EVOO.

Quantification of reactive oxygen species (ROS) was carried out on human U937 monocyte-cell line by flow cytometry with DCFH-DA fluorescent staining, and the levels of pro-inflammatory and anti-inflammatory cytokines were measured by Enzyme-Linked ImmunoSorbent Assay (ELISA).

Hydroxytyrosol is capable of decrease intracellular ROS levels on monocyte cells and it is able to modulate inflammatory cytokine expression reducing pro-inflammatory IL-6 and IL-12 levels and increasing anti-inflammatory IL-10 cytokine. Hydroxytyrosol have no effect on IFN-gamma expression.

Hydroxytyrosol, by modulating cellular inflammatory response, could participate in the anti-inflammatory efficiency attributed to Extra Virgin Olive Oil.