

# Maslinic acid provides a natural defense against colon cancer

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Researchers from the University of Granada and the University of Barcelona have shown that treatment with maslinic acid, a triterpenoid compound isolated from olive-skin pomace, results in a significant inhibition of cell proliferation and causes apoptotic death in colon-cancer cells. Maslinic acid is a novel natural compound and it is able to induce apoptosis or programmed death in human HT29 colon-cancer cells via the intrinsic mitochondrial pathway. Scientifics suggest this could be a useful new therapeutic strategy for the treatment of colon carcinoma.

This study is the first to investigate the precise molecular mechanisms of the anti-tumoral and pro-apoptotic effects of maslinic acid against colon-cancer. Chemopreventive agents of a natural origin, often a part of our daily diet, may provide a cheap, effective way of controlling such diseases as cancer of the colon. A wide range of studies in recent years has shown that triterpenoids hinder carcinogenesis by intervening in pathways such as carcinogen activation, DNA repair, cell cycle arrest, cell differentiation and the induction of apoptosis in cancer cells.

Triterpenoids are compounds present in a wide range of plants used in traditional medicine and known to have antitumoral properties. Low concentrations of maslinic acid are to be found in plants with medicinal properties, but its concentration in the waxy skin of olives may be as high as 80%.

The results of the study could contribute to the development of maslinic acid for use as cancer chemotherapeutic or chemopreventive agents.

Paper: The research paper will be published in 2009 in the journal *Cancer Letters*, specialized in the broad area of cancer research, under the title "Maslinic acid, a natural triterpene from *Olea europaea* L., induces apoptosis in HT29 human colon-cancer cells via the mitochondrial apoptotic

pathway"  
Source: Universidad de Granada

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