eFood - European Laboratory Scientists Magazine

http://www.scientistlive.com/food/?/Ingredients/2008/02/14/19763/Olive\_pulp\_compound\_inhibits\_c...



- Ingredients
- Food Safety Hygiene
- Processing Equipment
- Packaging
- Technology

# **Previous Issue**



- <u>Consumers increasingly perceive kosher and halal food as safer</u>
- Diode-array spectrometer for the meat industry
- Boosting productivity and cost-efficiency when

## eFood - Ingredients

## Olive pulp compound inhibits cancer

### Date: 14/02/2008

A research group of the University of Granada has found out that maslinic acid, a compound present in the leaf and the olive skin wax extracted from alpeorujo (crushed olive pulp), has the capacity of preventing cancer as well as regulating apoptosis in carcinogenic processes.

Maslinic acid is a protease inhibitor that, among other features, has the capacity of regulating cell growth. It is useful for cancer treatment, as it allows to control the hyperplasia and hypertrophy processes, typical of this disease. The scientists of the UGR have characterised for the first time maslinic acid action from the molecular point of view when it is applied to the development of tumour cells.

This work has been carried out by Ph D student Fernando Jesús Reyes Zurita, and directed by Professor José Antonio Lupiáñez Cara, of the department of Biochemistry and Molecular Biology I. According to them, the advantages of maslinic acid are three: Unlike other anti-carcinogenic products, highly cytotoxic, it is a natural compound and, therefore, less toxic. In addition, it is selective, this is, it only acts on carcinogenic cells, whose pH is more acid than usual. And lastly, it has a preventive nature, as it can inhibit cancer appearance in those cells with a higher predisposition to develop it.

#### For all types of cancer

Although the research group of Professor Lupiáñez Cara has analysed the effect of maslinic acid in the treatment of colon cancer, it can be used in different types of tumours. For the moment, their research works have been developed in colon carcinoma lines and transgenic mice, but they have not dismissed the possibility of applying them to humans in future.

Maslinic acid is a pentacyclic terpene which, besides being anti-carcinogenic, it has anti-inflammatory and antioxidant effects and can be found in high concentrations in olive skin wax. At present, the only production plant of this substance at a semi-industrial level in the whole world is at the Faculty of Sciences of the University of Granada.