

HIGH PERFORMANCE METHOD FOR THE PRODUCTION OF HYDROXYTYROSOL

DESCRIPTION OF THE TECHNOLOGY

The CSIC and the University of Valencia have developed a new recombinant microorganism that can produce high purity hydroxytyrosol from glucose through a highly efficient method. Hydroxytyrosol is one of the most powerful antioxidants known and can be used as nutraceutical due to its anticancer, cardioprotective, anti-inflammatory and neuroprotective properties.

The principal source of hydroxytyrosol currently is the olive oil lees, through a low performance process that produces low purity compounds. Our new invention allows obtaining high purity hydroxytyrosol by using a simple and high performance method.

Biotechnological techniques currently available for the production of hydroxytyrosol involve the addition of tyrosine in the growth medium, while in our method the hydroxytyrosol is directly produced through glucose, therefore reducing costs and increasing production performance.

Moreover, hydroxytyrosol produced through our method presents a high degree of purity, being therefore of high interest for nutraceutical uses.

MARKET APPLICATION SECTORS

Food and nutrition sectors, pharmaceutical sector.

TECHNICAL ADVANTAGES AND BUSINESS BENEFITS

- Production of high purity hydroxytyrosol through a simple and high performance method.
- The production is developed through the wine yeast *Saccharomyces cerevisiae*, a Generally Recognized As Safe (GRAS) organism.
- It uses glucose as carbon source for the production of hydroxytyrosol, what allows reducing dramatically the production costs.

CURRENT STATE OF DEVELOPMENT

The technology has been successfully tested in laboratory environment.

INDUSTRIAL AND INTELLECTUAL PROPERTY RIGHTS

Patent application filed suitable for international extension.

COLLABORATION SOUGHT

Companies in the food, nutritional or pharmaceutical sectors interested in the license of the patent for the development of projects for the industrial application of the technology and its commercial exploitation are being sought.

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RELATED IMAGES



Image 1. Through the use of wine yeast huge amounts of high purity hydroxytyrosol are obtained at a low cost.

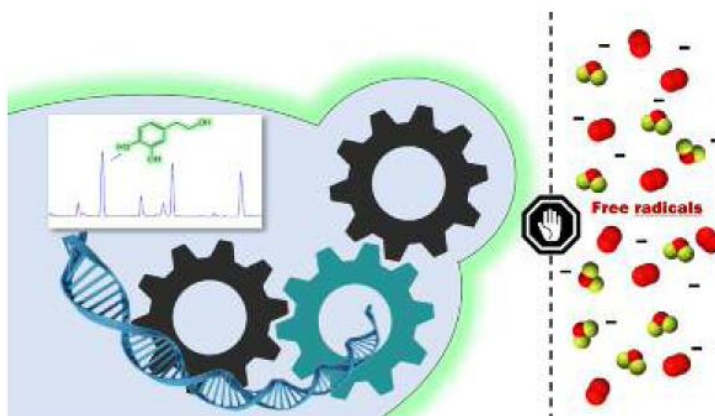


Image 2. Representation of the obtention of the recombinant organism that produces hydroxytyrosol.

CONTACT

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