

## **Characterization of novel antioxidative compound produced by microbial conversion of olive secondary metabolite**

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Development of novel drugs has been achieved sometimes by microbial conversion of secondary metabolites. For example, hydroxylations of compactin and vitamin D<sub>3</sub> by microbial cytochrome P450s generated well-known commercial medicines, pravastatin and calcitriol, respectively. Thus, novel materials with useful functions for cosmetics or food additives will be possibly developed by bioconversion of secondary metabolites. We found that bakers' yeasts catalyzed the reduction of an aldehyde form of oleuropein aglycon (the substrate) in olive leaf extract. We isolated the substrate and its enzymatically converted product and determined their structures by instrumental analyses. Both of the substrate and the product, a novel alcohol, exhibited a pronounced antioxidative activity in a DPPH test. It was found that contents of oleuropein and its aglycon in olive leaf extract vary with variety. One pot conversion of oleuropein to compound B catalyzed by a combination of  $\beta$ -glucosidase and yeast cells was achieved.