

The presence of selected dehydrogenases, including alcohol dehydrogenase (ADH-YL) and aldehyde dehydrogenase (ALDH-YL), in *Yarrowia lipolytica* JMY 861, and their potential role in flavor synthesis were investigated. The experimental findings showed that using reduced form of nicotinamide adenine dinucleotide (NADH) as cofactor, the ADH-YL activity *in vitro* was 6-fold higher than that with reduced form of nicotinamide adenine dinucleotide phosphate (NADPH); however, under the experimental conditions used in this study, an ALDH-YL activity was not detected. The *in situ* hexanal reduction reaction was found to be instantaneous; however, when the yeast cells suspension was diluted 150 times, the initial relative hexanal concentration was increased by 84.1%. The chromatographic analyses indicated the conversion, *in situ*, of linoleic acid hydroperoxides (HPODs) into volatile C₆-compounds after 60 min of HPODs addition to the yeast cells suspension.

An endogenous alcohol dehydrogenase in *Yarrowia lipolytica* JMY 861 along with the genetically cloned hydroperoxide lyase from green bell pepper.