

# DISCOVERY OF LINALOOL FROM FERMENTATION OF PINEAPPLE JOSAPINE JUICE WITH SACCHAROMYCES CEREVISIAE

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## ABSTRACT

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Terpenes, esters, ketones and aldehydes are originally presented in pineapple and mostly terpenes are appeared to be free and glycosylated conjugates amongst the secondary metabolites of fermentation. In this study, linalool from three different fermentation conditions which were pineappleJosapine juice without yeast inocula, yeast in YPD broth and yeast in pineappleJosapine juice, was extracted at 24, 48 and 72 hours by using ethanol solution (12%, v/v) as the extraction solvent. The separation and detection of linalool from the ethanol extract were performed by carrying out thin layer chromatography (TLC) with hexane-ethylacetate (4:1, v/v) as a mobile phase and by spraying with vanillin solution, respectively. The blue spots were observed on TLC plate and it indicated the presence of linalool compound. The linalool standard curve was plotted and the linalool spots on TLC plate were scraped and mixed with ethanol solution (12%, v/v) and quantified the concentration of linalool present in each flask by measuring absorbance at 300 nm using UV-visible spectrophotometer. The yeast enhanced 0.157%, 0.199% and 0.471% of the concentration of linalool in 24-hour, 48-hour and 72-hour respectively during fermentation.