

Studies on fermentative production of Beta-carotene from *Phaffia rhodozyma*

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Plating of the astaxanthin-producing yeast *Phaffia rhodozyma* on yeast-malt agar media containing different concentration of Beta-Ionone gave colonies with yellow orange pigment after 6 to 8 days of fermentation. Isolation of Beta-Carotene producing colonies were done, followed by testing for pigment production in shake flasks, demonstrated that pigment concentration were increased two-to five fold for Beta-Carotene content compared with the parental one. It was found from our study that Beta-

Carotene production was improved by addition of Beta-Ionone at concentration of about 10^{-4} and 2×10^{-4} after sixth day of fermentation. By using different carbon and magnesium source yield of Beta-Carotene content could be increased to higher level with sucrose 283.01 $\mu\text{g/g}$, ammonium sulphate (234.80 $\mu\text{g/g}$) and magnesium sulphate (218.65 $\mu\text{g/g}$)

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