

Effects of CO₂ Supply on Cell Growth and Succinic Acid Production of *Mannheimia succiniciproducens* MBEL55E

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Mannheimia succiniciproducens MBEL55E was isolated from Korean bovine rumen and is maintained at Department of Chemical and Biomolecular Engineering, KAIST. (Daejeon, South Korea). It has an ability to produce a large amount of succinic acid from various carbon sources under anaerobic conditions in presence of CO₂. The levels of CO₂ in the medium have known to be very important factor which affects on the growth of the succinic acid-producing bacteria. Therefore, the effect of CO₂ concentration on cell growth and product formation was studied in batch fermentations of *M. succiniciproducens* MBEL55E. NaHCO₃, MgCO₃ and CaCO₃ were supplied as a donor of CO₂ in the medium, respectively. The supplementation of these chemicals enhanced the production of succinic acid and cell growth. It means that NaHCO₃, MgCO₃ and CaCO₃ can act as a donor of CO₂. The most effective nutrient was NaHCO₃.