

奇异变形杆菌的 L-氨基酸脱氢酶在大肠杆菌中的异源表达和鉴定

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摘要: 本研究在大肠杆菌中表达了奇异变形杆菌的 L-氨基酸脱氢酶, 并对产物苯丙酮酸进行了鉴定。奇异变形杆菌的 L-氨基酸脱氢酶在大肠杆菌中得到了很好的表达, 具有酶活性, 并且发现其活性与细胞膜相关。L-氨基酸脱氢酶与细胞膜的密切相关性, 对酶活来说可能是必不可少的。

关键词: 奇异变形杆菌, 脱氢酶, 苯丙氨酸, 苯丙酮酸, 苯乳酸

Heterologous Expression and Characterization of L-Amino Acid Deaminase from *Proteus mirabilis* in *Escherichia coli*

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Abstract: We expressed an L-amino acid deaminase (Pma) from *Proteus mirabilis* in *Escherichia coli* and characterized the kinetics of phenylpyruvic acid production. *P. mirabilis* Pma was well expressed in *E. coli* in an active state and was found to be associated with membranes. The association of Pma with cellular membranes is likely to be necessary for its enzymatic activity.

Keywords: proteus mirabilis, deaminase, phenylalanine, phenylpyruvic acid, phenyllactic acid

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