

BIOTECHNOLOGY & BIOENGINEERING

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摘要: 建立了一种快速定量方法, 用于在重组大肠杆菌 (E. coli) 中生产海狗素 I (HgpI)。通过将海狗素 I 的 N 末端与绿色荧光蛋白 (GFP) 融合, 不仅实现了海狗素 I 在 E. coli 中的功能性重组表达, 而且建立了海狗素 I 的 GFP 荧光强度与海狗素 I 活性之间的线性相关性, 从而允许在海狗素 I 的发酵过程中快速定量其酶活性。

关键词: 重组表达; 海狗素 I; 绿色荧光蛋白 (GFP); 海狗素 I; 快速定量

DOI: 10.1002/biot.201700012

快速表达和定量 GFP 融合蛋白以重组海狗素 I 的 E. coli

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Received: 15 October 2016; Accepted: 15 November 2016  
Abstract: To establish a rapid quantification method for heparinase I during its production in recombinant Escherichia coli, a translational fusion vector was constructed by fusing the N terminus of heparinase I to the C terminus of a green fluorescent protein (GFP). As a result, not only was the functional recombinant expression of heparinase I in E. coli accomplished, but also a linear correlation was obtained between the GFP fluorescence intensity and heparinase I activity, allowing enzyme activity to be quantified rapidly during the fermentation.

Keywords: recombinant expression; heparinase I; green fluorescent protein (GFP); heparinase I; rapid quantification

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