

技术与方法

融合干扰素-BLA (IFN-BLA) 的构建、表达、纯化及抗病毒活性测定

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摘要 干扰素-BLA (IFN-BLA) 由干扰素-beta-1b (IFN-beta-1b) 和干扰素-alpha-2b (IFN-alpha-2b) 通过连接肽-GGGs-融合而成。优化了其在大肠杆菌BL21 CodonPlus (DE3)-RIL中的实验室表达条件, 表达的目的蛋白占菌体总蛋白的35%以上并且主要以包涵体的形式存在。对包涵体的复性条件进行了摸索, 建立了IFN-BLA的复性及纯化方法, 纯化后的蛋白产量约为45 mg/L, 纯度在90%以上。抗病毒活性分析表明这一新的融合蛋白可能具有协同或加成活性。

关键词 [IFN-BLA](#) [表达](#) [纯化](#) [抗病毒活性](#)

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Construction, Expression, Purification and Antiviral Activity of Fusing Interferon-BLA (IFN-BLA)

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Abstract

A fusion protein, Interferon-BLA (IFN-BLA), was constructed with IFN-beta-1b and IFN-alpha-2b separating by a linker -GGGS-. The laboratory-scale expression conditions in E.coli BL21 CodonPlus (DE3)-RIL had been optimized and IFN-BLA was expressed higher than 35% of total protein in the cells mainly as inclusion body. The inclusion body of IFN-BLA was denatured and refolded by dialysis and purified by ion-exchange chromatography. The overall yield of IFN-BLA was about 45 mg/L with purity higher than 90%. Antiviral activity assay suggested that this newly fused protein may have synergetic or additive antiviral activities.

Key words [IFN-BLA](#) [expression](#) [purification](#) [antiviral activity](#)

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