

# 志贺氏菌属弗氏2a染色体基因文库的构建<sup>1)</sup>

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摘要 以λ噬菌体EMBL3为载体, 用体外包装技术构建了志贺氏菌属弗氏2a染色体基因文库。该体外包装系统的包装效率达 $1.6 \times 10^8$  pfu /  $\lambda$ g DNA, 重组噬菌体的产量达 $2 \times 10^6$  pfu /  $\lambda$ g DNA。对重组噬菌体进行了遗传分析, 即分别对7个标记 (leu1 pro3 his, arg, t, hr, purletroA) 作了测定。测得当噬菌体母液的效价为 $8.7 \times 10^{10}$  pfu / ml时, 带有以上标记的重组噬菌体的效价为 $5 \times 10^4$ – $8.2 \times 10^5$  pfu / ml。这个令人满意的结果为尔后克隆志贺氏菌属弗氏2a染色体上的与群抗原3, 4和型抗原11有关的基因打下了基础。

关键词 [志贺氏菌属弗氏2a](#) [λ载体EMBL3](#) [基因文库](#)

分类号

## Construction of Genomic Library of Shigella flexneri 2a Chromosome DNA

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### Abstract

A genomic library of *S. flexneri* 2a was constructed with bacteriophage  $\lambda$  vector EMBL-3. The results showed that the packaging efficiency achieved  $1.6 \times 10^8$  pfu /  $\lambda$ g DNA, the yield of the recombinant phages was  $2.0 \times 10^6$  pfu /  $\lambda$ g DNA. In order to check if all known genes have been cloned into the vector, seven genetic markers (leu, pro, his, arg, rhr, pur1, aroA) were detected individually. When the pfu of the recombinant phages in stock solution was  $8.7 \times 10^{10}$  pfu/ml, the frequencies of the recombinant phages that contain these seven markers were in the range of  $5.0 \times 10^4$ – $8.2 \times 10^5$  pfu/ml. These results are very useful for constructing a live-vaccine protecting against *S. flexneri* 2a infection.

Key words [S. flexneri 2a](#); [λ vector EMBL3](#) [Genomic library](#)

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