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抗2,4-D巨大芽孢杆菌基因组文库的构建

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摘要: 以抗2,4-D的巨大芽孢杆菌Bacillus megaterium为材料，酶切基因组总DNA和载体pACYC184；回收1~4 kb范围的外源基因组DNA片段，与载体连接后，转入BL21感受态细胞中,进行蓝白斑与氯霉素抗性筛选,采用菌落PCR方法检测连接效率,并对该文库进行质量鉴定。成功构建了巨大芽孢杆菌基因组文库，得到8 900个阳性重组子，平均插入片段长度为2.5 kb，文库约覆盖了B.megaterium菌株基因组的556倍。该文库的建立为选育抗2，4-D转基因大豆的新品种奠定了基础。

Abstract: Bacillus megateriumwhich was efficient resistant to 2,4-D,recycled the 1~4 kb DNA fragments of digested B.megaterium genomic DNA,and with digested vector pACYC184 overnight connection,transferred it to BL21 competent cells,after the blue-white screening and chloramphenicol resistance screening by colony PCR to detect the connection efficiency and quality of the library.Successfully constructed the B.megaterium genomic library and obtain 8 900 positive clones with an average insert fragment length of 2.5 kb.And this library covers approximately 556 times B.megaterium genome.This library establish the theoretical basis for 2,4-D resistant transgenic soybean.

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