

BIOTECHNOLOGY & BIOENGINEERING

航天诱变提高 *Streptomyces gilvosporeus* 的那他霉素产量

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摘要 Mutants of the strain producing natamycin, *Streptomyces gilvosporeus*, were obtained after space-flight mutation. With respect to the sand spores and slant spores, the mutation ratios were up to 67.6% and 78.3% and the survival ratio was 43.1% and 3.0%, respectively. An improved mutant producing natamycin, *S. gilvosporeus* LK-45, was screened, which showed natamycin productivity of 1420mg/L-1. A mutant resistant to 2-deoxy glucose, *S. gilvosporeus* LK-119, was further obtained using a rational screening procedure. The natamycin productivity of 1940mg/L-1 was achieved when glucose was used as the carbon source.

关键词 [space-flight mutation](#) [Streptomyces gilvosporeus](#) [natamycin](#) [rational screening](#) [2-deoxy glucose](#)

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Space-flight mutation of streptomyces gilvosporeus for enhancing natamycin production

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Abstract Mutants of the strain producing natamycin, *Streptomyces gilvosporeus*, were obtained after space-flight mutation. With respect to the sand spores and slant spores, the mutation ratios were up to 67.6% and 78.3% and the survival ratio was 43.1% and 3.0%, respectively. An improved mutant producing natamycin, *S. gilvosporeus* LK-45, was screened, which showed natamycin productivity of 1420mg/L-1. A mutant resistant to 2-deoxy glucose, *S. gilvosporeus* LK-119, was further obtained using a rational screening procedure. The natamycin productivity of 1940mg/L-1 was achieved when glucose was used as the carbon source.

Key words

[space-flight mutation](#); [Streptomyces gilvosporeus](#); [natamycin](#); [rational screening](#); [2-deoxy glucose](#)

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