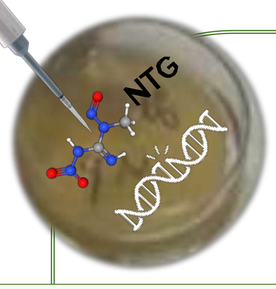
L-Alanine production by biotechnological way



Performing classical mutagenesis in the initial strain *Brevibacterium flavum* AA5 (DL-α- ABA-r, D-ala-) by N-methyl-N'-nitro-N-nitrosoguanidine (NTG)

1

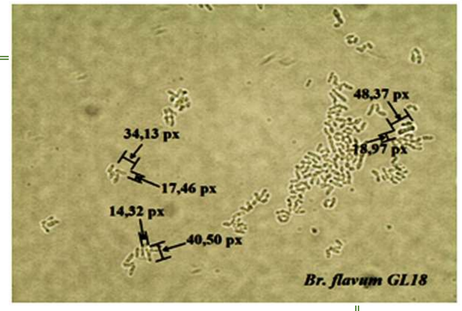
2

β-Cl-L-Alanine-resistant mutants obtaining

3

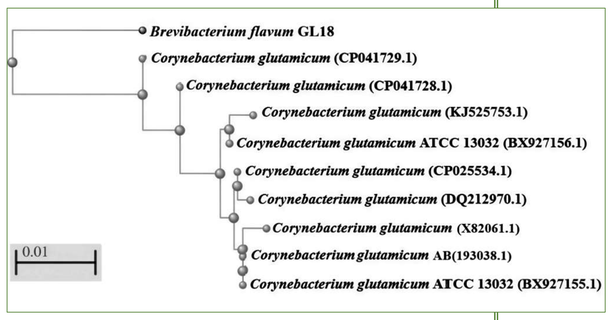
β-Cl-L-Alanine-resistant mutants selection

4



The most active producer *B. flavum* GL18 (DL-α- ABA-r, D-ala-, β-Cl-L-ala-r) investigation

5



Performing phylogenetic analysis based on the 16S rRNA gene

6

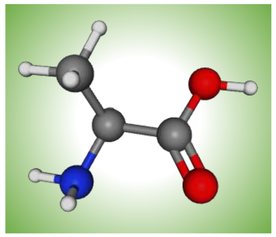
B. flavum GL18 inoculum obtaining

7

Technological parameters optimization for L-alanine production in shake-flask fermentation

8

Technological parameters optimization for L-alanine production in a laboratory bioreactor



- L-Alanine: 62.8 g/l
- Productivity: 1.08 g/lh