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Short Genome Communications

Draft genome sequence of *Rhodococcus erythropolis* B7g, a biosurfactant producing actinobacterium

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Highlights

- Anionic trehalose-tetraester as a valuable biosurfactant.
- Stable and prolonged biosurfactant production by R. erythropolis B7g.
- Genome reveals numerous secondary metabolite relevant gene clusters.
- Gene redundancy uncovered for trehalose production.

Abstract

Biosurfactants are amphipathic molecules with relevance in biotechnology due to their structural diversity, low toxicity and biodegradability. The genus *Rhodococcus* has extensively been studied because of its capacity to produce trehalose-containing surfactants as well as trehalose lipids as potential pathogenic factor. Here we present the draft genome sequence of *Rhodococcus erythropolis* B7g isolated with toluene from fuel-contaminated soil. The genome comprises 7,175,690 bp in 121 contigs, a G + C content of 62,4% and 7,153 coding DNA sequences (CDSs), and it contains genes for trehalose biosynthesis and surfactant production. Additionally, genes for the production of trehalose-tetraester biosurfactant were identified, whose function was experimentally verified making the strain B7g a potential candidate for use in bioremediation applications or in biosurfactant exploration.