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Title (English)

Genome engineering: new functionalities by iterative assembly of an operon

Title (Swedish)

Abstract

The aim with synthetic biology is to facilitate the engineering of biological systems. BioBrick™ parts, i.e. standardized biological components such as promoters and genes, is a way of achieving this. Standardized BioBrick™ parts work together along with standardized BioBrick™ vectors, in a similar way as standardized components in computers – you must not be an expert to make different components work together.

In this work, I am expanding the field of synthetic biology and the use of BioBrick™ parts to engineering of the bacterial chromosome. I report the design and construction of a vector family suitable for iterative chromosomal integration in *Escherichia coli* of BioBrick™ parts compatible with the RFC10 BioBrick™ assembly standard.

Keywords

Synthetic biology, chromosomal integration, BioBrick, recombineering, Lambda Red

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