

Microbial Genome Editing

Introduction

As a leading provider of DNA sequencing, synthesis, and editing services, Creative Diagnostics provides efficient and precise microbial genome editing services based on each customer's unique needs to achieve the modification of specific target genes in the organism's genome.

About Microbial Genome Editing

CRISPR technology has been widely used in synthetic biology, metabolic engineering, and medical research in recent years, greatly contributing to the development of these fields.

• Our microbial genome editing services:

Projects	Genome Editing Services	Application
<i>Escherichia Coli</i>	<ol style="list-style-type: none">1. CRISPR/Cas9 gene knockout2. CRISPR/Cas9 gene knock-in3. CRISPR/Cas9 safe harbor transgene knock-in	<ol style="list-style-type: none">1. Antibiotics and industrial enzymes2. Discovery of gene function3. Optimization of metabolic pathway
<i>Pseudomonas Aeruginosa</i>	<ol style="list-style-type: none">1. <i>P. aeruginosa</i> gene knockout2. <i>P. aeruginosa</i> gene knock-in3. <i>P. aeruginosa</i> gene point mutation4. Gene activation and inhibition5. Promoter fine-tuning6. Reporter gene and tag integration	<ol style="list-style-type: none">1. Study of bacterial physiology2. Exploration of drug targets3. Research on metabolic engineering

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<i>Salmonella</i>	<ol style="list-style-type: none">1. <i>Salmonella</i> gene knockout2. <i>Salmonella</i> gene knock-in3. <i>Salmonella</i> gene point mutation4. Gene activation and inhibition	<ol style="list-style-type: none">1. Research on antibiotics and important industrial enzymes2. Exploration of new gene functions3. Optimization of metabolic pathways and increased production of metabolic products4. Development of <i>Salmonella</i>-based tumor gene therapy vectors
<i>Staphylococcus Aureus</i>	<ol style="list-style-type: none">1. <i>Staphylococcus aureus</i> gene deletion2. <i>Staphylococcus aureus</i> gene insertion3. <i>Staphylococcus aureus</i> single-base substitution mutation4. Gene activation and inhibition	<ol style="list-style-type: none">1. Functional genomics studies2. Antibiotic resistance mechanisms3. Vaccine development

Advantages of Our Microbial Genome Editing Services

- Seamless
- Multigene editing: knock out up to 5 genes simultaneously
- Precision down to the base pair
- Simple selection: no selectable marker required