cogentech

Genome editing

Overview

We offer genome editing services in cell lines for the most diverse research projects. We have developed streamlined gene knock-out protocols for standard cell lines. Highly customized approaches are developed together with the researchers to realize more complex genome editing projects such as knock-in, point mutations, tagging to name a few.

Service

We offer the complete service from project design to feasibility test, genome editing, clonal selection and characterization of the editing event by sequencing and Western blot. Our toolbox includes plasmid-based approaches as well as delivery of purified Cas9 along with synthetic gRNAs.

Innovation

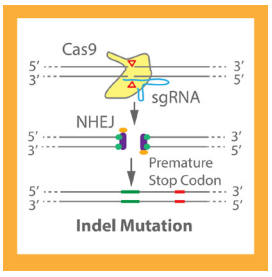
We don't stop at easy-to-transfect cell lines. We offer alternative delivery methods that in many cases proved to be effective in cell lines, which are transfected with low efficiency. Genome editing is a fast evolving field. We are keeping up with the newest technologies to assist researchers in identifying the best approach to address their scientific questions.

Quality

We have implemented quality control steps at various phases of the projects. We use validated reagents and have developed protocols for assessing feasibility and optimizing genome editing efficiency in non-canonical cell lines. Best practices for sample and data management are implemented to ensure reliability, reproducibility and quality at each step of the project workflow.

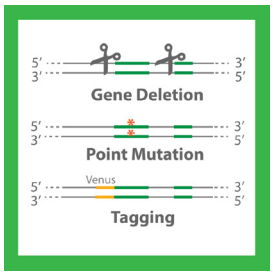
Services

STANDARD KO



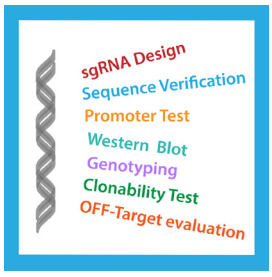
- In validated, easy to transfect cell lines (Hela, HEK293, NIH3T3)
- In any cell line that passes feasibility testing
- Transfection based (plasmid or RNP)
- Biallelic KO (only for not essential genes)
- Screening for edited clones by Sequencing and/or Western blot analysis
- Delivery of single clone(s)

CUSTOM SERVICES



- KO by gene deletion
- Knock-in into safe harbor locus (AAVS1, Rosa26)
- Point mutation (disease modeling)
- Tagging of endogenous genes
- Reporter cell lines

ADDITIONAL SERVICES



Pre- editing:

- gRNA design and estimation of off-target effects
- Sequence verification of the target locus
- Test of CRISPR/Cas9 delivery (Plasmid or RNP) suitable for your model cell line
- Promoter test for Cas9 expression
- Test for clonability by limiting dilution and/or sorting

Post-editing:

- Genotyping of the isolated KO/KI clones by Sanger sequencing
- Western blot to confirm gene KO/KI at the protein level

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