Every genome editing project is unique to the customer depending on the desired modification and cell background. We gladly provide consultation to evaluate the technical feasibility of editing the desired cell line. We take time to understand your research goals.

We perform stable cell lines and genome editing with currently available CRISPR/Cas9 systems.
We provide editing service for cell lines and human embryonic stem cells (hESC), please find the list of available cells below. Please note that we currently do not provide genome editing service for primary cells.
<https://www.helsinki.fi/sites/default/files/atoms/files/web-table_1.docx>

For detailed information on hESC services, please contact Biomedicum Stem Cell Center:
<https://www.helsinki.fi/en/researchgroups/pluripotency-and-disease-modeling/bscc-core-facility>

1. **First Name:**
2. **Surname:**
3. **Telephone number:**
4. **Organisation:**
5. **Your Reference Number:**
6. **Address:**
7. **Post code:**
8. **Country:**
9. **Please indicate the type of service you are interested:**

Knockout cell line

Knockout cell pool

1. **Name and type of host cell line:**

*Please note that the construction of a stable cell line from the cell lines that we currently have or know how to culture might be a cheaper option: HeLa, HEK293, 293FT, breast cancer cell lines, (non-exhaustive list)*

Adherent cell line (write the name below)

Suspension cell line (write the name below)

1. **What is the ploidity of the cell line?**
2. **Who provides host cell line?**

*Note: Cell line must be mycoplasma-tested prior genome editing. Suggested mycoplasma detection kit: MycoAlert™ PLUS Mycoplasma Detection Kit-Lonza, LT07-701.

Note: If the cell line is neither available commercially or from FinGEEC, then the service might not be accessible at the moment.*

Customer

Commercially available from (Please write vendor and cat# below): ...

1. **What is the medium and additives for cell growth?**
2. **Cell subculturing protocol:**

*E.g. Cells are detached with ... for ... minutes. The cell line is passaged ... times per week in a ratio ...*

1. **What is the minimal number of cryopreserved cells for recovery of your cell line of interest?**
2. **Gene accession number (mRNA NCBI reference):**

*Gene Symbol, Ensembl ID or Ensembl ID of the transcript that you want to target*

1. **Does the KO of target gene inhibit cell proliferation or survival?**

*If not sure, please provide known functions of the target gene.

Note: If "Yes", a stable cell line might be tedious, expensive or impossible to generate, therefore, such projects will be on client’s own responsibility.*

Yes

No

Not sure (write known functions below)

1. **Can you provide guide RNA (gRNA) constructs?**

*Note: We prefer to use High Fidelity SpCas9, please notify us, if you have any other preference.

Note: The guarantee for efficiency of a gRNA provided by the customer applies to the specific target cell line. However, for an evaluation of a specific gRNA, we recommend high scores as described by Doench et al, 2016 and Hsu et al, 2014.
DOI: 10.1038/nbt.3437
DOI: 10.1016/j.cell.2014.05.010

Note: Over 95% of tested sgRNAs from Sanger's gRNA KO library induced specific DNA cleavage as measured by Surveyor nuclease assay. However, the success rate of gRNAs may vary greatly in cell lines.*

Yes

Yes, and please validate gRNAs in core facility

No, I need gRNAs from Sanger's KO library

No, I want to use FinGEEC’s guide RNA design with/without PCR optimization services.

1. **If yes to above question, what is the DNA format (mini or maxi prep) and concentration of the gRNA mammalian expression vector?**
2. **Can you provide validated genomic PCR primers for target area?**

*Note. Validated primers will have gRNA-mediated cutting side approximately in the middle of gRNA-targeted region and single product produced. FinGEEC can instruct with primer validation, automatic primer design can be done with available CRISPR primer design webtools.*

Yes

No

1. **Do you have a target-specific antibody to show protein knockdown?**

Yes

No

1. **Additional requirements or comments that you wish to discuss beforehand.**

*Note. A negative control cell line will be provided, please notify whether you prefer to include non-target gRNA control in the cell line*