Pipeline framework

Quality control panel

Design package

Genome-wide library design

sgRNA design

Quality control

NC sgRNA design

Input:
Gene file
Genome file
Configure file

NGS data cleaning

Read mapping

Data normalization

Quality metrics

Library metrics

sgRNA level statistics

replicate consistency analysis

NC sgRNA ND fitting

Data processing package

Input:
Raw .fastq file
Configure file

gene level statistics

FPR curve simulation

Gene fitness calculation

FDR calculation by ST approach

operon level statistics

Reorganize output using operon information

sgRNA design metrics

Selection pressure

Replicate agreement

NC fitness distribution

False discovery curve