Accurately Assess Cas9 Activity in Cells

- Measure functional activity of Cas9 nuclease, dCas9-repressor, or dCas9-activator in any cell line
- Obtain quantitative FACS-based read-outs
- Get complete, easy-to-use kits with ready-to-transduce lentiviral particles

The CRISPR-Test assay kits contain a mix of lentiviral particles with both green fluorescent and red fluorescent protein (GFP and RFP). The GFP fluorescent marker responds to the specific Cas9 activity the Kit measures whether nuclease (CRISPRu or CRISPR KO), gene repression (CRISPRi), or gene activation (CRISPRa). The RFP fluorescence provides a normalization control.

How Does it Work?
1. Transduce your test population of putative Cas9, dCas9-activator, or dCas9-repressor cells.
2. Determine by flow cytometry the ratio of green to red fluorescent cells.
3. After 4-6 days, measure the ratio of green to red fluorescent cells again.
4. Cas9 activity correlates with the difference in the initial vs. end-point ratios of green vs. red cells.

Measure Cas9 for CRISPR knockout, CRISPRa, or CRISPRi

CRISPRuTest™ Universal Cas9 Nuclease Assay Kit (cat. # CRUTEST)—Measure Cas9 nuclease activity in any mammalian cell system.

CRISPRaTest™ dCas9-Activator Assay Kit (cat. # CRATEST)—Measure the transcriptional activator efficacy of any of the several dCas9-activator variants used for the CRISPRa system, including dCas9-VP64, dCas-Rta, Cellecta’s dCas9-VPH.

CRISPRiTest™ dCas9-Repressor Assay Kit (cat. # CRITEST)—Measure the transcriptional repressor function of any dCas9-repressor fusion, such as dCas9-KRAB.

Combination Kits: CRISPR-Test Assay and Cas9 with 4 Different Promoters
To find the optimal Cas9 or dCas9 repressor or activator construct for your cell system, Cellecta offers a combination of four Cas9 expression constructs at a reduced price when purchased in conjunction with one of the CRISPR-Test Assays.

CRISPRuTest™ dCas9 Assay (cat. # CRUTP-SET) with 10^6 TU of each of the following:
• CMV-Cas9-Puro  • RSV-Cas9-Puro
• EFS-Cas9-Puro  • SFFV-Cas9-Puro

CRISPRiTest™ dCas9-Repressor Assay (cat. # CRITP-SET) with 10^6 TU of each of the following:
• CMV-dCas9-KRAB-Puro  • RSV-dCas9-KRAB-Puro
• EFS-dCas9-KRAB-Puro  • SFFV-dCas9-KRAB-Puro

CRISPRaTest™ dCas9-Activator Assay (cat. # CRATP-SET) with 10^6 TU of each of the following:
• CMV-dCas9-VPH-Puro  • RSV-dCas9-VPH-Puro
• EFS-dCas9-VPH-Puro  • SFFV-dCas9-VPH-Puro

For more information on these or other Cellecta products and services, email us at info@cellecta.com.