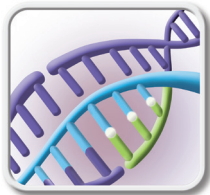


SureGuide gRNA Synthesis Kit

Data Sheet

Key Features

- Complete, easy-to-use gRNA expression kit; purified ready-to-use guide RNAs in less than 2.5 hours
- Validated synthetic system to provide ready to use guide RNAs
- Enzymes and reagents optimized for maximum gRNA yields and consistent performance
- Free SureDesign CRISPR guide gRNA design workspace identifies gRNAs for any input sequence and provides IVT ready templates



CRISPR SureDesign Workspace



Complete, reliable, and validated kit to generate high concentrations of gRNA for CRISPR/Cas applications.

The SureGuide gRNA synthesis kit is designed for the rapid and simple preparation of gRNAs to be used separately or bundled with the SureGuide Cas9 system (part no 5190-7714). It has been optimized for in vitro expression and contains all necessary components to prepare purified gRNA from a user-provided DNA template. gRNA expression using the SureGuide system can take as little as an hour to obtain micro-molar yields, enough for around 400 in vitro Cas9 reactions.



Agilent Technologies

High gRNA yields are obtained even with low DNA template concentrations

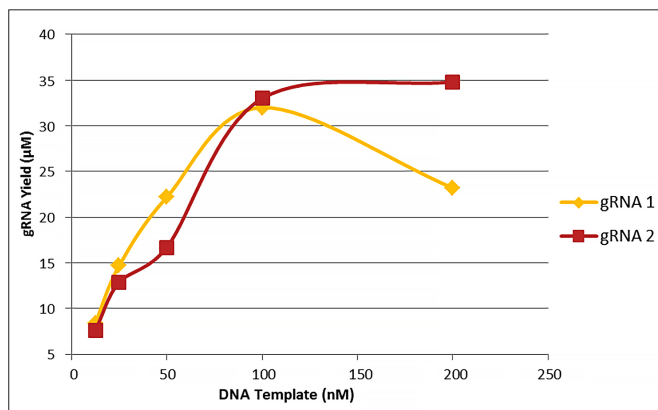


Figure 1. The effect of template input on yield of gRNA. Decreasing concentrations of template were subjected to 1 hour of in vitro transcription, showing that even low concentrations of template DNA are sufficient to obtain high yields of gRNA.

1 hour is sufficient to obtain gRNA for CRISPR/Cas experiment

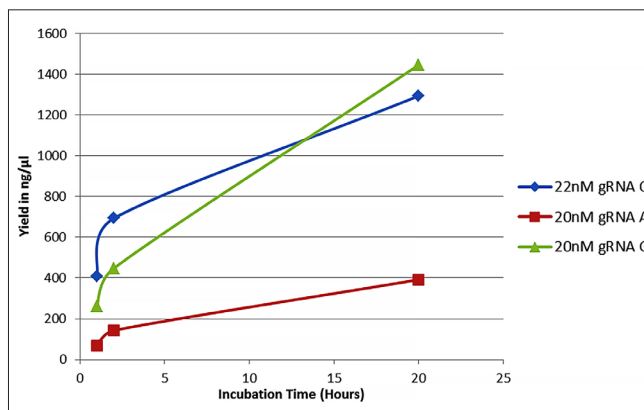


Figure 2. Three gene fragments were subjected to in vitro transcription for 1, 2, or 20 hours. gRNA yields after only 1 hour provided sufficient material for completing nearly 400 in vitro Cas9 digests. Additionally, yield continued to increase linearly over time indicating that PCR amplification would be unnecessary even for low concentration templates.

Agilent SureGuide Product Portfolio

| PN | Description | Enzyme & Buffer | sgRNA Control | IVT |
|-----------|---|-----------------|---------------|-----|
| 5190-7714 | SureGuide CRISPR/Cas Complete Kit, 40rx | ✓ | ✓ | ✓ |
| 5190-7719 | SureGuide gRNA Synthesis Kit, 50rx | | | ✓ |
| 5190-7717 | SureGuide Cas9 Programmable Nuclease, 100rx | ✓ | | |
| 5190-7718 | SureGuide gRNA Control Kit, 20rx | | ✓ | |
| 5190-7715 | SureGuide Cas9 Programmable Nuclease Kit, 20rx | ✓ | ✓ | |
| 5190-7716 | SureGuide Cas9 Programmable Nuclease Kit, 100rx | ✓ | ✓ | |

SureDesign

Agilent's SureDesign web-based gRNA design application allows you to find guide RNA, and sort them by number of potential off target sites and distance to the origin of the target window. You can download selected guide gRNA sequences as well as the full length RNAs templates ready for in vitro transcription plus a number of reports and information of potential off target sites. Start your design today:

www.agilent.com/genomics/suredesign

www.agilent.com/genomics/sureguide

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