

# SureGuide gRNA Synthesis Kit

## Data Sheet

### Key Features

- Complete, easy-to-use gRNA expression kit; obtain 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.



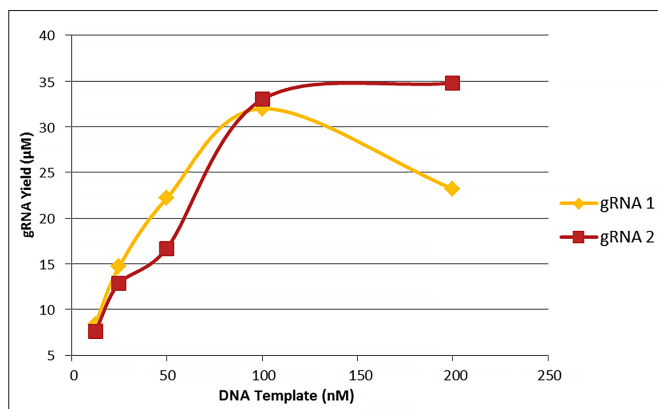
**Complete, reliable, and validated kit to generate high concentrations of gRNA for CRISPR/Cas applications.**

The SureGuide gRNA synthesis kit is designed for the rapid and simple preparation of gRNAs to be used in conjunction 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 digests.



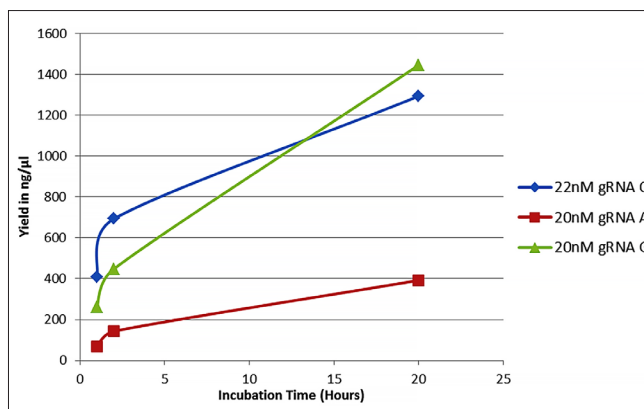
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### High gRNA yields are obtained even with low DNA template concentrations



**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	✓	✓	

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