

Dharmacon™ CRISPRmod MS2 tracrRNA

This document is specific to Catalog No: U-102005-05, No: U-102005-20, and No: U-102005-50.

Product Description

- CRISPRmod MS2 tracrRNA is a single-stranded, chemically synthesized, HPLC-purified RNA molecule custom made for the CRISPRa SAM system (Konermann, 2015).
- Design is based on the published, optimized *S. pyogenes* tracrRNA sequence (Jinek, 2012) with an added MS2 aptamer sequence on stem loop 2.
- Chemically modified for improved nuclease resistance and compatible with Edit-R™ CRISPRa crRNA.
- Oligo identity is confirmed by mass spectrometry.

Shipping and Storage

- CRISPRmod MS2 tracrRNA is shipped at ambient temperature (~23 °C) as lyophilized RNA. It will appear as a clear or fluffy white substance. Under these conditions, it is stable for at least four weeks.
- Upon receipt, the Edit-R SAM tracrRNA should be stored at –20 °C to –80 °C. Under these conditions, the reagents are stable for at least one year.

Resuspension

- CRISPRmod MS2 tracrRNA should be resuspended in nuclease-free 10 mM Tris-HCl Buffer pH 7.4 (Cat. #B-006000-100) to the desired final concentration.
- Upon resuspension, aliquot the MS2 tracrRNA into small volumes and store at –20 °C to –80 °C in a manual defrost or non-cycling freezer. For best results, limit freeze-thaws of each tube to no more than five events. Under these conditions, MS2 tracrRNA is stable for at least one year.

Handling Precautions

Oligonucleotides are susceptible to enzymatic degradation by nucleases and to chemical degradation by extreme pH and temperature. Always wear gloves and maintain nuclease-free conditions. Never attempt to handle the RNA in its lyophilized form.

Table 1. Resuspension volumes for Edit-R SAM tracrRNA

Edit-R SAM tracrRNA Cat. No.	Amount of Edit-R SAM tracrRNA	Volume of Tris Buffer for 100 µM stock
U-102005-05	5 nmol	50 µL
U-102005-20	20 nmol	200 µL
U-102005-50	50 nmol	500 µL

Technical Considerations

- For resuspension of CRISPRmod MS2 tracrRNA follow the Dharmacon synthetic guide RNA resuspension [protocol](#).
- For addition of CRISPRmod MS2 tracrRNA to the wells of an CRISPRmod CRISPRa crRNA Library, follow the [protocol](#) found in the Dharmacon arrayed crRNA libraries guide.
- For efficient crRNA: MS2 tracrRNA delivery, we recommend [DharmaFECT™ transfection reagents](#).

For more information

To find the contact information in your country for your technology of interest, please visit us at horizondiscovery.com/contact-us

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