

# **Product Data Sheet**

## MRI1 siRNA (Rat)

| Catalog #   | Source     | Reactivity   | Applications                       |                          |  |
|---|------------|--|------------------------------------|--------------------------|--|
| CRR4007   | Synthetic  | R  | RNAi                               |                          |  |
| Description   | siRNA      | to inhibit MRI1 expre  | ession using RNA interference      |                          |  |
| Specificity   | MRI1       | siRNA (Rat) is a target  | -specific 19-23 nt siRNA oligo dup | plexes designed to       |  |
|   | knock      | down gene expressio  | n.                                 |                          |  |
| Form  | Lyoph      | ilized powder  |                                    |                          |  |
| Gene Symbol   | MRI1       | MRI1   |                                    |                          |  |
| Alternative N   | ames Methy | Methylthioribose-1-phosphate isomerase; M1Pi; MTR-1-P isomerase;                       |                                    |                          |  |
|   | S-met      | hyl-5-thioribose-1-ph  | osphate isomerase; Translation in  | itiation factor eIF-2B   |  |
|   | subun      | iit alpha/beta/delta-li  | ke protein                         |                          |  |
| Entrez Gene   | 28891      | L2 (Rat)   |                                    |                          |  |
| SwissProt   | Q5HZ       | Q5HZE4 (Rat)   |                                    |                          |  |
| Purity  | > 97%      |  |                                    |                          |  |
| Quality Control Oligonucleotide synthesis is monitored base by base three |            | s monitored base by base through   | trityl analysis to ensure          |                          |  |
|   | appro      | priate coupling efficie  | ncy. The oligo is subsequently pu  | rified by affinity-solid |  |
|   | phase      | extraction. The anne   | aled RNA duplex is further analyz  | ed by mass               |  |
|   | spectr     | rometry to verify the  | exact composition of the duplex. I | Each lot is compared to  |  |
|   | the pr     | revious lot by mass sp   | ectrometry to ensure maximum le    | ot-to-lot consistency.   |  |
| Components  | We of      | We offers pre-designed sets of 3 different target-specific siRNA oligo duplexes of rat |                                    |                          |  |
|   | MRI1       | gene. Each vial contai   | ns 5 nmol of lyophilized siRNA. Th | ne duplexes can be       |  |
|   | transf     | ected individually or p  | booled together to achieve knock   | down of the target       |  |
| gene, which is most commonly assessed by qPCR or western blot.            |            |  | blot.                              |                          |  |
|   | Com        | ponent   | 15 nmol                            | 30 nmol                  |  |

Application key: E- ELISA, WB- Western blot, IH- Immunohistochemistry, IF- Immunofluorescence, FC- Flow cytometry, IC-Immunocytochemistry, IP- Immunoprecipitation, ChIP- Chromatin Immunoprecipitation, EMSA- Electrophoretic Mobility Shift Assay, BL- Blocking, SE- Sandwich ELISA, CBE- Cell-based ELISA, RNAi- RNA interference Species reactivity key: H- Human, M- Mouse, R- Rat, B- Bovine, C- Chicken, D- Dog, G- Goat, Mk- Monkey, P- Pig, Rb-Rabbit, S- Sheep, Z- Zebrafish

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# **Product Data Sheet**

| MRI1 siRNA (Rat) - A | 5 nmol x 1   | 5 nmol x 2   |
|----------------------|--------------|--------------|
| MRI1 siRNA (Rat) - B | 5 nmol x 1   | 5 nmol x 2   |
| MRI1 siRNA (Rat) - C | 5 nmol x 1   | 5 nmol x 2   |
| Negative Control     | 2.5 nmol x 1 | 2.5 nmol x 2 |
| DEPC Water           | 1 ml x 1     | 1 ml x 2     |

#### **Directions for Use**

We recommends transfection with 10 nM - 100 nM siRNA 48 to 72 hours prior to cell lysis. Before resuspending, briefly centrifuge the tube to ensure the lyophilized siRNA is at the bottom of the tube. Resuspend the siRNA oligos to an appropriate concentration with DEPC water. For example, resuspend one tube of 5 nmol siRNA oligo in 250  $\mu$ l of DEPC water to get a final concentration of 20  $\mu$ M.

| Plate   | Final volume | Final concentration | siRNA (20 μM) | Lipofectamin |
|---------|--------------|---------------------|---------------|--------------|
|         | of medium    | of siRNA            |               | 2000         |
|         |              | 100 nM              | 0.5 μl        | 0.25 μl      |
| 96-well | 100 µl       | 50 nM               | 0.25 μl       | 0.25 μl      |
|         |              | 10 nM               | 0.05 μl       | 0.25 μl      |
|         |              | 100 nM              | 2.5 μl        | 1 µl         |
| 24-well | 500 μl       | 50 nM               | 1.25 μl       | 1 µl         |
|         |              | 10 nM               | 0.25 μl       | 1 μl         |
|         |              | 100 nM              | 5 µl          | 2 μΙ         |
| 12-well | 1 ml         | 50 nM               | 2.5 μl        | 2 μΙ         |
|         |              | 10 nM               | 0.5 μl        | 2 μΙ         |
|         |              | 100 nM              | 10 µl         | 5 µl         |
| 6-well  | 2 ml         | 50 nM               | 5 µl          | 5 µl         |
|         |              | 10 nM               | 1 μl          | 5 μΙ         |

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For research purposes only, not for human use

## **Product Data Sheet**

**Storage/Stability** Shipped at 4 °C. Store at -20 °C for one year.

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