

### **Product Data Sheet**

# SLC7A1 siRNA (Rat)

Catalog # Source Reactivity Applications

CRR0845 Synthetic R RNAi

**Description** siRNA to inhibit SLC7A1 expression using RNA interference

**Specificity** SLC7A1 siRNA (Rat) is a target-specific 19-23 nt siRNA oligo duplexes designed to

knock down gene expression.

Form Lyophilized powder

Gene Symbol SLC7A1

Alternative Names ATRC1; High affinity cationic amino acid transporter 1; CAT-1; CAT1; Ecotropic

retroviral leukemia receptor; Ecotropic retrovirus receptor; ERR; Solute carrier family

7 member 1; System Y+ basic amino acid transporter

Entrez Gene 25648 (Rat)

SwissProt P30823 (Rat)

**Purity** > 97%

Quality Control Oligonucleotide synthesis is monitored base by base through trityl analysis to ensure

appropriate coupling efficiency. The oligo is subsequently purified by affinity-solid

phase extraction. The annealed RNA duplex is further analyzed by mass

spectrometry to verify the exact composition of the duplex. Each lot is compared to

the previous lot by mass spectrometry to ensure maximum lot-to-lot consistency.

Components We offers pre-designed sets of 3 different target-specific siRNA oligo duplexes of rat

SLC7A1 gene. Each vial contains 5 nmol of lyophilized siRNA. The duplexes can be

transfected individually or pooled together to achieve knockdown of the target

gene, which is most commonly assessed by qPCR or western blot.

Component 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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| SLC7A1 siRNA (Rat) - A | 5 nmol x 1   | 5 nmol x 2   |
|------------------------|--------------|--------------|
| SLC7A1 siRNA (Rat) - B | 5 nmol x 1   | 5 nmol x 2   |
| SLC7A1 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         |
| 96-well | 100 μΙ       | 100 nM              | 0.5 μΙ        | 0.25 μΙ      |
|         |              | 50 nM               | 0.25 μl       | 0.25 μΙ      |
|         |              | 10 nM               | 0.05 μΙ       | 0.25 μΙ      |
| 24-well |              | 100 nM              | 2.5 μΙ        | 1 μΙ         |
|         | 500 μΙ       | 50 nM               | 1.25 μΙ       | 1 μΙ         |
|         |              | 10 nM               | 0.25 μl       | 1 μΙ         |
| 12-well | 1 ml         | 100 nM              | 5 μΙ          | 2 μΙ         |
|         |              | 50 nM               | 2.5 μΙ        | 2 μΙ         |
|         |              | 10 nM               | 0.5 μΙ        | 2 μΙ         |
| 6-well  | 2 ml         | 100 nM              | 10 μΙ         | 5 μΙ         |
|         |              | 50 nM               | 5 μΙ          | 5 μΙ         |
|         |              | 10 nM               | 1 μΙ          | 5 μΙ         |

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## **Product Data Sheet**

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

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