Cohesion BIOSCIENCES

For research purposes only, not for human use

# Product Data Sheet

## RYR2 siRNA (Rat)

| Catalog # | Source | Reactivity | Applications |
|---|---|---|---|
| CRR6833 | Synthetic | R | RNAi |

**Description** siRNA to inhibit RYR2 expression using RNA interference

**Specificity** RYR2 siRNA (Rat) is a target-specific 19-23 nt siRNA oligo duplexes designed to knock down gene expression.

**Form** Lyophilized powder

**Gene Symbol** RYR2

**Alternative Names** Ryanodine receptor 2; RYR-2; RyR2; Cardiac muscle ryanodine receptor; Cardiac muscle ryanodine receptor-calcium release channel; Type 2 ryanodine receptor

**Entrez Gene** 689560 (Rat)

**SwissProt** B0LPN4 (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 RYR2 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 |
|---|---|---|
| RYR2 siRNA (Rat) - A | 5 nmol x 1 | 5 nmol x 2 |

**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

| | | |
|---|---|---|
| RYR2 siRNA (Rat) - B | 5 nmol x 1 | 5 nmol x 2 |
| RYR2 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 µl of DEPC water to get a final concentration of 20 µM.

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

**Storage/Stability**

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

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