

# **Product Data Sheet**

## POLG2 siRNA (Human)

| Catalog #      | Source    | Reactivity  | Applications   |  |  |  |
|----------------|-----------|---|--|--|--|--|
| CRH7698        | Synthetic | н   | RNAi   |  |  |  |
| Description    | siRNA     | to inhibit POLG2 exp  | ression using RNA interference                             |  |  |  |
| Specificity    | POLG      | POLG2 siRNA (Human) is a target-specific 19-23 nt siRNA oligo duplexes designed to    |  |  |  |  |
|                | knock     | down gene expressio   | on.  |  |  |  |
| Form           | Lyoph     | ilized powder   |  |  |  |  |
| Gene Symbol    | POLG      | POLG2   |  |  |  |  |
| Alternative Na | ames MTPO | MTPOLB; DNA polymerase subunit gamma-2 mitochondrial; DNA polymerase                  |  |  |  |  |
|                | gamm      | a accessory 55 kDa s  | ubunit; p55; Mitochondrial DNA polymerase accessory        |  |  |  |
|                | subun     | it; MtPolB; PolG-beta   | 9  |  |  |  |
| Entrez Gene    | 11232     | 11232 (Human)   |  |  |  |  |
| SwissProt      | Q9UH      | Q9UHN1 (Human)  |  |  |  |  |
| Purity         | > 97%     | > 97%   |  |  |  |  |
| Quality Contro | ol Oligor | Oligonucleotide synthesis is monitored base by base through trityl analysis to ensure |  |  |  |  |
|                | appro     | priate coupling efficie   | ency. The oligo is subsequently purified by affinity-solid |  |  |  |
|                | phase     | extraction. The anne  | ealed RNA duplex is further analyzed by mass               |  |  |  |
|                | spectr    | rometry to verify the   | exact composition of the duplex. Each lot is compared to   |  |  |  |
|                | the pr    | evious lot by mass sp   | pectrometry to ensure maximum lot-to-lot consistency.      |  |  |  |
| Components     | We of     | We offers pre-designed sets of 3 different target-specific siRNA oligo duplexes of    |  |  |  |  |
|                | huma      | n POLG2 gene. Each v  | vial contains 5 nmol of lyophilized siRNA. The duplexes    |  |  |  |
|                | can be    | e transfected individu  | ally or pooled together to achieve knockdown of the        |  |  |  |
|                | target    | target gene, which is most commonly assessed by qPCR or western 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**

| POLG2 siRNA (Human) - A | 5 nmol x 1   | 5 nmol x 2   |
|-------------------------|--------------|--------------|
| POLG2 siRNA (Human) - B | 5 nmol x 1   | 5 nmol x 2   |
| POLG2 siRNA (Human) - 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 μΙ         |
| 24-well   | 500 μl       | 50 nM               | 1.25 μl       | 1 μΙ         |
|           |              | 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         |
| . <u></u> |              | 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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