

# Product Data Sheet

## MRPL45 siRNA (Human)

Catalog #	Source	Reactivity	Applications									
CRJ3433	Synthetic	H	RNAi									
Description	siRNA to inhibit MRPL45 expression using RNA interference											
Specificity	MRPL45 siRNA (Human) is a target-specific 19-23 nt siRNA oligo duplexes designed to knock down gene expression.											
Form	Lyophilized powder											
Gene Symbol	MRPL45											
Alternative Names	39S ribosomal protein L45 mitochondrial; L45mt; MRP-L45											
Entrez Gene	84311 (Human)											
SwissProt	Q9BRJ2 (Human)											
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 human MRPL45 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.											
<table><tr><th>Component</th><th>15 nmol</th><th>30 nmol</th></tr><tr><td>MRPL45 siRNA (Human) - A</td><td>5 nmol x 1</td><td>5 nmol x 2</td></tr><tr><td>MRPL45 siRNA (Human) - B</td><td>5 nmol x 1</td><td>5 nmol x 2</td></tr></table>				Component	15 nmol	30 nmol	MRPL45 siRNA (Human) - A	5 nmol x 1	5 nmol x 2	MRPL45 siRNA (Human) - B	5 nmol x 1	5 nmol x 2
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**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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MRPL45 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 of medium	Final concentration of siRNA	siRNA (20 $\mu$ M)	Lipofectamin 2000
96-well	100 $\mu$ l	100 nM	0.5 $\mu$ l	0.25 $\mu$ l
		50 nM	0.25 $\mu$ l	0.25 $\mu$ l
		10 nM	0.05 $\mu$ l	0.25 $\mu$ l
24-well	500 $\mu$ l	100 nM	2.5 $\mu$ l	1 $\mu$ l
		50 nM	1.25 $\mu$ l	1 $\mu$ l
		10 nM	0.25 $\mu$ l	1 $\mu$ l
12-well	1 ml	100 nM	5 $\mu$ l	2 $\mu$ l
		50 nM	2.5 $\mu$ l	2 $\mu$ l
		10 nM	0.5 $\mu$ l	2 $\mu$ l
6-well	2 ml	100 nM	10 $\mu$ l	5 $\mu$ l
		50 nM	5 $\mu$ l	5 $\mu$ l
		10 nM	1 $\mu$ l	5 $\mu$ l

## Storage/Stability

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

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