

# **Product Data Sheet**

### SMAD4 siRNA (Rat)

Catalog #	Source	Reactivity	Applications			
CRR1374	Synthetic	R	RNAi			
Description	siRNA	to inhibit SMAD4 exp	pression using RNA interference			
Specificity	SMAD	04 siRNA (Rat) is a tar	get-specific 19-23 nt siRNA oligo du	plexes designed to		
	knock	down gene expression	on.			
Form	Lyoph	ilized powder				
Gene Symbol	SMAD	SMAD4				
Alternative N	ames MADH	MADH4; Mothers against decapentaplegic homolog 4; MAD homolog 4; Mothers				
	agains	st DPP homolog 4; SN	1AD family member 4; SMAD 4; Sma	ad4		
Entrez Gene	50554	4 (Rat)				
SwissProt	07043	O70437 (Rat)				
Purity	> 97%	> 97%				
Quality Control Oligonucleotide synthesis is monitored bas			s monitored base by base through t	se by base through trityl analysis to ensure		
	appropriate coupling efficiency. The oligo is subsequently purified by affinity-			ied by affinity-solid		
phase extraction. The annealed RNA duplex is further analyzed by m			l by mass			
	spect	spectrometry to verify the exact composition of the duplex. Each lot is compared to				
	the pr	revious lot by mass sp	ectrometry to ensure maximum lot	-to-lot consistency.		
Components	We of	We offers pre-designed sets of 3 different target-specific siRNA oligo duplexes of rat				
	SMAD	SMAD4 gene. Each vial contains 5 nmol of lyophilized siRNA. The duplexes can be				
	transf	transfected individually or pooled together to achieve knockdown of the target				
	gene,	gene, which is most commonly assessed by qPCR or western blot.				
	Com	ponent	15 nmol	30 nmol		
	SMA	.D4 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

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SMAD4 siRNA (Rat) - B	5 nmol x 1	5 nmol x 2
SMAD4 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 μΙ
		10 nM	0.25 μl	1 μΙ
		100 nM	5 μl	2 μl
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 μΙ
		10 nM	1 μΙ	5 μΙ

#### Storage/Stability

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

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