

Nusinersen

Cat. No.:	HY-112980
CAS No.:	1258984-36-9
Molecular Weight:	7127.3
Sequence:	RNA, [2'-O-(2-methoxyethyl)](P-thio)(m5U-m5C-A-m5C-m5U-m5U-m5U-m5C-A-m5U-A-A-m5U-G-m5C-m5U-G-G)
Target:	DNA/RNA Synthesis
Pathway:	Cell Cycle/DNA Damage
Storage:	-20°C, stored under nitrogen, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen, away from moisture)

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SOLVENT & SOLUBILITY

In Vitro	H ₂ O : 100 mg/mL (14.03 mM; ultrasonic and warming and heat to 60°C)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	0.1403 mL	0.7015 mL	1.4031 mL
		5 mM	0.0281 mL	0.1403 mL	0.2806 mL
10 mM		0.0140 mL	0.0702 mL	0.1403 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	1. Add each solvent one by one: PBS Solubility: 50 mg/mL (7.02 mM); Clear solution; Need ultrasonic				

BIOLOGICAL ACTIVITY

Description	Nusinersen is an antisense oligonucleotide agent that modifies pre-messenger RNA splicing of the SMN2 gene and thus promotes increased production of full-length SMN protein ^[1] .
In Vitro	Nusinersen is an SMN-ASO that increases SMN levels by blocking an intronic splice silencer in SMN2, thereby facilitating the exon 7 inclusion and generation of FL-SMN2 transcripts ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Richard S Finkel, et al. Nusinersen versus Sham Control in Infantile-Onset Spinal Muscular Atrophy. N Engl J Med. 2017 Nov 2;377(18):1723-1732.

[2]. Laura Torres-Benito, et al. NCALD Antisense Oligonucleotide Therapy in Addition to Nusinersen further Ameliorates Spinal Muscular Atrophy in Mice. Am J Hum Genet. 2019 Jul 3;105(1):221-230.

Caution: Product has not been fully validated for medical applications. For research use only.

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