

Lumasiran

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Cat. No.:	HY-132588
CAS No.:	1834610-13-7
Sequence:	RNA, (Gm-sp-Am-sp-Cm-Um-Um-(2'-deoxy-2'-fluoro)C-Am-(2'-deoxy-2'-fluoro)U-(2'-deoxy-2'-fluoro)C-(2'-deoxy-2'-fluoro)C-Um-Gm-Gm-Am-Am-Um-Am-Um-Am-M,3 '-[[(2S,4R)-1-[29-[[2-(acetylamino)-2-deoxy-β-Dgalactopyranosyl]oxy]-14,14-bis[[3-[[3 -[[5-[[2-(acetylamino)-2-deoxy-β-Dgalactopyranosyl]oxy]-1-oxopentyl]amino]propyl] amino]-3-oxopropoxy]methyl]-1,12,19,25-tetraoxo-16-oxa-13,20,24-triazanonacos-1- yl]-4-hydroxy-2-pyrrolidinyl]methyl hydrogen phosphate], complex with RNA (Um-sp- (2'-deoxy2'-fluoro)A-sp-Um-Am-Um-(2'-deoxy-2'-fluoro)U-Um-(2'-deoxy-2'-fluoro)C-(2'-deoxy2'-fluoro)C-Am-Gm-Am-(2'-deoxy-2'-fluoro)U-Gm-(2'-deoxy-2'-fluoro)A- Am-Am-Gm-Um-Cm-sp-Cm-sp-Am) (1:1)
Target:	Small Interfering RNA (siRNA)
Pathway:	Epigenetics
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)

SOLVENT & SOLUBILITY	
In Vitro	H ₂ O : 100 mg/mL (Need ultrasonic)
In Vivo	1. Add each solvent one by one: PBS Solubility: 50 mg/mL (Infinity mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description	Lumasiran (ALN-G01), a siRNA product, reduces hepatic oxalate production by targeting glycolate oxidase. By silencing the gene encoding glycolate oxidase, Lumasiran depletes glycolate oxidase and thereby inhibits the synthesis of oxalate, which is the toxic metabolite that is directly associated with the clinical manifestations of Primary hyperoxaluria type 1 (PH1) ^{[1][2]} .
In Vitro	Lumasiran reduced urinary oxalate excretion, the cause of progressive kidney failure in PH1 ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Lumasiran is a subcutaneously administered, liver-directed RNA interference (RNAi) therapeutic agent ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Scott LJ, et al. Lumasiran: First Approval. Drugs. 2021;81(2):277-282.

[2]. Garrelfs SF, et al. Lumasiran, an RNAi Therapeutic for Primary Hyperoxaluria Type 1. N Engl J Med. 2021;384(13):1216-1226.

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

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