Cobomarsen

Cat. No.:	HY-132601
CAS No.:	1848257-52-2
Molecular Weight:	4736
Sequence:	RNA, (P-thio)((2'-O,4'-C-methylene)m5C-dA-(2'-O,4'-C-methylene)m5C-dG-dA- (2'-O,4'-C-methylene)m5U-(2'-O,4'-C-methylene)m5U-dA-(2'-O,4'-Cmethylene)G-dC-(2'-O,4'-C-methylene)A-(2'-O,4'-C-methylene)m5U-(2'-O,4'-Cmethylene)m5U-(2'-O,4'-C-methylene)A)
Target:	MicroRNA
Pathway:	Epigenetics
Storage:	-20°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

SOLVENT & SOLUBILITY

In Vitro

H_2O : 100 mg/mL (21.11 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	0.2111 mL	1.0557 mL	2.1115 mL
5 mM	0.0422 mL	0.2111 mL	0.4223 mL
10 mM	0.0211 mL	0.1056 mL	0.2111 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Cobomarsen (MRG-106) is an oligonucleotide inhibitor of miR-155. Cobomarsen inhibits multiple gene pathways associated with cell survival (including JAK/STAT, MAPK/ERK and PI3K/AKT). Cobomarsen can be used for the research of B-cell lymphoma[1][2].

In Vitro

Cobomarsen (10 μM; 48-96 h) reduces cell proliferation and induces apoptosis in U2932, OCI-LY3, and RCK8 cells[2].
Cobomarsen (10 μM; 72 h) significantly increases the expression of the four direct targets in the cell lines that overexpress miR-155[1].
Cobomarsen (10 μM; 12 days) reduces cellular proliferation and induces apoptosis in MF and HTLV-1+ CTCL cells[1].
Cobomarsen (10-50 μM; 7 days) reduces phosphorylation of the downstream signalling proteins AKT, ERK1/2, and STAT-3 in primary human activated T cells or MF cell lines[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Proliferation Assay[2]

Cell Line:	U2932, OCI-LY3 and RCK8 cells
Concentration:	10 μM
Incubation Time:	48, 72, 96 hours
Result:	Concentration-dependently inhibited cell phosphorylation.

Apoptosis Analysis[2]

Cell Line:	U2932, OCI-LY3 and RCK8 cells
Concentration:	10 μM
Incubation Time:	96 hours
Result:	Triggered a significant induction of late apoptosis in all cell lines.

In Vivo

Cobomarsen (1 mg/kg; i.v. on days 0, 2, 4, and 7) inhibits tumor growth in mice carrying U2932 cells xenografts[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Five-to-six weeks old female NSG mice injected with U2932 cells
Dosage:	1 mg/kg
Administration:	I.v. on days 0, 2, 4, and 7
Result:	Reduced tumor growth most significantly at day 7 and day 10.

REFERENCES

[1]. Seto AG, et, al. Cobomarsen, an oligonucleotide inhibitor of miR-155, co-ordinately regulates multiple survival pathways to reduce cellular proliferation and survival in cutaneous T-cell lymphoma. Br J Haematol. 2018 Nov;183(3):428-444.

[2]. Anastasiadou E, et, al. Cobomarsen, an Oligonucleotide Inhibitor of miR-155, Slows DLBCL Tumor Cell Growth In Vitro and In Vivo. Clin Cancer Res. 2021 Feb 15;27(4):1139-1149.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA