

Cobomarsen

Cat. No.:	HY-132601
CAS No.:	1848257-52-2
Target:	Others
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

Cobomarsen

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	<p>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].</p> <p>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].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Proliferation Assay^[2]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>U2932, OCI-LY3 and RCK8 cells</td> </tr> <tr> <td>Concentration:</td> <td>10 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>48, 72, 96 hours</td> </tr> <tr> <td>Result:</td> <td>Concentration-dependently inhibited cell phosphorylation.</td> </tr> </table> <p>Apoptosis Analysis^[2]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>U2932, OCI-LY3 and RCK8 cells</td> </tr> <tr> <td>Concentration:</td> <td>10 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>96 hours</td> </tr> <tr> <td>Result:</td> <td>Triggered a significant induction of late apoptosis in all cell lines.</td> </tr> </table>	Cell Line:	U2932, OCI-LY3 and RCK8 cells	Concentration:	10 μ M	Incubation Time:	48, 72, 96 hours	Result:	Concentration-dependently inhibited cell phosphorylation.	Cell Line:	U2932, OCI-LY3 and RCK8 cells	Concentration:	10 μ M	Incubation Time:	96 hours	Result:	Triggered a significant induction of late apoptosis in all cell lines.
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In Vivo	<p>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.</p>																

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.

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

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