

Oblimersen

Cat. No.:	HY-118874
CAS No.:	190977-41-4
Sequence:	DNA, d(P-thio)(T-C-T-C-C-C-A-G-C-G-T-G-C-G-C-C-A-T)
Target:	Bcl-2 Family; Apoptosis
Pathway:	Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

Oblimersen

BIOLOGICAL ACTIVITY

Description	Oblimersen is a BCL-2 inhibitor targeting BCL-2 RNA. Oblimersen specifically binds to the first six codons of the bcl-2 mRNA sequence, resulting in degradation of bcl-2 mRNA and induces apoptosis by down-regulating expression of Bcl-2. Oblimersen can be used for cancer research ^{[1][2][3]} .																
In Vitro	<p>Oblimersen (500 nM; 72 hours; human small-cell lung cancer cell lines H69) decreases BCL-2 protein expression in vitro^[1]. Oblimersen (500 nM; 72 hours; human small-cell lung cancer cell lines H69) increases radiation-induced apoptosis^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Cycle Analysis^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>Human small-cell lung cancer cell lines H69</td> </tr> <tr> <td>Concentration:</td> <td>500 nM</td> </tr> <tr> <td>Incubation Time:</td> <td>72 hours</td> </tr> <tr> <td>Result:</td> <td>Decreased BCL-2 protein levels.</td> </tr> </table> <p>Cell Cycle Analysis^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>Human small-cell lung cancer cell lines H69</td> </tr> <tr> <td>Concentration:</td> <td>500 nM</td> </tr> <tr> <td>Incubation Time:</td> <td>72 hours</td> </tr> <tr> <td>Result:</td> <td>Arrested cell cycle at sub G1 phase.</td> </tr> </table>	Cell Line:	Human small-cell lung cancer cell lines H69	Concentration:	500 nM	Incubation Time:	72 hours	Result:	Decreased BCL-2 protein levels.	Cell Line:	Human small-cell lung cancer cell lines H69	Concentration:	500 nM	Incubation Time:	72 hours	Result:	Arrested cell cycle at sub G1 phase.
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In Vivo	<p>Oblimersen (10 mg/kg; i.p.; daily, for 6 days; nude mice bearing H69 xenografts) decreases tumoural vascularisation in vivo^[1].</p> <p>Oblimersen (5-10 mg/kg; i.p.; daily (Monday to Friday), for 3 weeks) has antitumor efficacy in the subcutaneous tumor model^[2].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>																

Animal Model:	Male severe combined immunodeficient (SCID)-RAG2 mice ^[2]
Dosage:	5 and 10 mg/kg
Administration:	Intraperitoneal injection; daily (Monday to Friday), for 3 weeks
Result:	Inhibited tumor growth in a dose-dependent manner.

REFERENCES

[1]. Lorient Y, et, al. Inhibition of BCL-2 in small cell lung cancer cell lines with oblimersen, an antisense BCL-2 oligodeoxynucleotide (ODN): in vitro and in vivo enhancement of radiation response. *Anticancer Res.* 2010 Oct;30(10):3869-78.

[2]. Hu Y, et, al. Antitumor efficacy of oblimersen Bcl-2 antisense oligonucleotide alone and in combination with vinorelbine in xenograft models of human non-small cell lung cancer. *Clin Cancer Res.* 2004 Nov 15;10(22):7662-70.

[3]. Klasa RJ, et, al. Oblimersen Bcl-2 antisense: facilitating apoptosis in anticancer treatment. *Antisense Nucleic Acid Drug Dev.* 2002 Jun;12(3):193-213.

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

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