

## **Oblimersen**

Cat. No.: HY-118874 CAS No.: 190977-41-4 Molecular Weight: 5667.5

DNA, d(P-thio)(T-C-T-C-C-A-G-C-G-T-G-C-G-C-A-T) Sequence:

Target: Bcl-2 Family; Apoptosis

Pathway: **Apoptosis** 

Please store the product under the recommended conditions in the Certificate of Storage:

Analysis.

# **Oblimersen**

**Product** Data Sheet

### **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<sup>[1][2][3]</sup>.

In Vitro

Oblimersen (500 nM; 72 hours; human small-cell lung cancer cell lines H69) decreases BCL-2 protein expression in vitro<sup>[1]</sup>. Oblimersen (500 nM; 72 hours; human small-cell lung cancer cell lines H69) increases radiation-induced apoptosis<sup>[1]</sup>. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Cycle Analysis<sup>[1]</sup>

Cell Line:	Human small-cell lung cancer cell lines H69
Concentration:	500 nM
Incubation Time:	72 hours
Result:	Decreased BCL-2 protein levels.

### Cell Cycle Analysis<sup>[1]</sup>

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.

In Vivo

Oblimersen (10 mg/kg; i.p.; daily, for 6 days; nude mice bearing H69 xenografts) decreases tumoural vascularisation in vivo $^{[1]}$ 

Oblimersen (5-10 mg/kg; i.p.; daily (Monday to Friday), for 3 weeks) has antitumor efficacy in the subcutaneous tumor model

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Animal Model:	Male severe combined immunodeficient (SCID)-RAG2 mice <sup>[2]</sup>
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]. Loriot 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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