ODN 1585

Cat. No.:	HY-150725
CAS No.:	386832-46-8
Molecular Weight:	6430
Target:	IFNAR; TNF Receptor
Pathway:	Immunology/Inflammation; Apoptosis
Storage:	-20°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

DNA, d(G-sp-G-G-G-T-C-A-A-C-G-T-T-G-A-G-G-sp-G-sp-G-sp-G-sp-G)

SOLVENT & SOLUBILITY

In Vitro

H_2O : 20 mg/mL (3.11 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	0.1555 mL	0.7776 mL	1.5552 mL
	5 mM	---	---	---
	10 mM	---	---	---

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

BIOLOGICAL ACTIVITY

Description

ODN 1585 is a potent inducer of IFN and TNFα production. ODN 1585 is a potent stimulator of NK (natural killer) function. ODN 1585 increases CD8+ T-cell function, including the CD8+ T cell-mediated production of IFN-γ. ODN 1585 induces regression of established melanomas in mice. ODN 1585 can confer complete protection against malaria in mice. ODN 1585 can be used for acute myelogenous leukemia (AML) and malaria research. ODN 1585 can be used as a vaccine adjuvant[1][2][3].

In Vitro

ODN 1585 (3 μg/mL, 48 h) induces PBMC producing IFN-α in the nanogram range[3].
ODN 1585 increases the percentage of CD69+ (early marker of activation) NK cells within 24 h (26±7%)[3].
CpG ODN (0.6μg/mL, 18 h) stimulates NK cell-mediated lysis of K562 cells[3].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

ODN 1585 (50-500 μg, Injection into the tibialis anterior muscle, single) protects 20 to 90% of mice from sporozoite infection[1].

ODN 1585 (100 μg/dose, IP, twice weekly) is determined to be optimal for the induction of antitumor responses in several systems involving comparisons of 30, 100, and 300 μg/injection[2].

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

Animal Model:	BALB/c ByJ mice (4- to 8-week-old, female, 6-18 mice in each group)[1]
Dosage:	50, 100, 200, or 500 μg (in 50 μL of saline)
Administration:	Injection into the tibialis anterior muscle, single (at 7, 2, or 1 day(s) prior to sporozoite infection, on the day of infection, and/or at 1 day postinfection)
Result:	Protected 20 to 90% of mice from infection when the ODN 1585 was administered around the time of sporozoite challenge with doses of 50 to 500 μg. The highest level of protection (90%) resulted from administration of 200 μg of CpG ODN 1585 the day before challenge or 100 μg of CpG ODN 1585 on the day before and the day of challenge.

REFERENCES

[1]. Gramzinski RA, et al. Interleukin-12- and gamma interferon-dependent protection against malaria conferred by CpG oligodeoxynucleotide in mice. Infect Immun. 2001 Mar;69(3):1643-9.

[2]. Blazar BR, et al. Synthetic unmethylated cytosine-phosphate-guanosine oligodeoxynucleotides are potent stimulators of antileukemia responses in naive and bone marrow transplant recipients. Blood. 2001 Aug 15;98(4):1217-25.

[3]. Krug A, et al. Identification of CpG oligonucleotide sequences with high induction of IFN-alpha/beta in plasmacytoid dendritic cells. Eur J Immunol. 2001 Jul;31(7):2154-63.

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