

## ODN 2336

<b>Cat. No.:</b>	HY-150742
<b>CAS No.:</b>	332956-64-6
<b>Molecular Weight:</b>	6761.7
<b>Sequence:</b>	DNA, d(G-sp-G-sp-G-G-A-C-G-A-C-G-T-C-G-T-G-G-sp-G-sp-G-sp-G-sp-G)
<b>Target:</b>	Toll-like Receptor (TLR)
<b>Pathway:</b>	Immunology/Inflammation
<b>Storage:</b>	4°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-sp-G-G-A-C-G-A-C-G-T-C-G-T-G-G-sp-G-sp-G-sp-G-sp-G)

### SOLVENT & SOLUBILITY

#### In Vitro

H<sub>2</sub>O : 20 mg/mL (2.96 mM; Need ultrasonic)

Solvent	Mass	Concentration		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	0.1479 mL	0.7395 mL	1.4789 mL
	5 mM	---	---	---
	10 mM	---	---	---

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

### BIOLOGICAL ACTIVITY

#### Description

ODN 2336 is a A-Class CpG ODN (oligodeoxynucleotides), is a potent TLR9 agonist. ODN 2336 induces the production of IFN- $\alpha$ . ODN 2336 up-regulates the expression of IP-10 mRNA and IL-18 mRNA. ODN 2336 can be used as adjuvant of vaccines<sup>[1][2][3]</sup>.

#### In Vitro

ODN 2336 (0.5  $\mu$ M; 24, 48 h) up-regulates the expression of f CD69 and IFN- $\alpha$ <sup>[1]</sup>.  
 ODN 2336 (3  $\mu$ g/ml; 4 h) stimulates strang transcription of IP-10 mRNA after 4 h in human PBMC<sup>[1]</sup>.  
 ODN 2336 (3  $\mu$ g/ml; 2, 4, 16 h) up-regulates the expression of IL-18 mRNA at the 16 htime point<sup>[1]</sup>.  
 ODN 2336 (50  $\mu$ g/mL; 20 h) with IL-3 (10 ng/mL) induces the production of IFN- $\alpha$  in the plasma of adult and cord blood<sup>[2]</sup>.  
 ODN 2336 (0.3125-5  $\mu$ g/ml; 24 h) increases the production of FNA1 in a dose-dependent manner in human PBMCs<sup>[3]</sup>.  
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

- [1]. urk M, et al. C-Class CpG ODN: sequence requirements and characterization of immunostimulatory activities on mRNA level. Immunobiology. 2004;209(1-2):141-54.
- [2]. old MC, et al. Purified neonatal plasmacytoid dendritic cells overcome intrinsic maturation defect with TLR agonist stimulation. Pediatr Res. 2006 Jul;60(1):34-7.

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[3]. Hilbert T, et al. Beta2-adrenoceptor stimulation suppresses TLR9-dependent IFN $\alpha$ 1 secretion in human peripheral blood mononuclear cells. PLoS One. 2013 May 28;8(5):e65024.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

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