

□ **Cat. #ODNIHN47-1** ODN INH-47- Class R Inhibitory TLR9 Antagonist, antigen grade

Size: 1 mg

CpG oligodeoxynucleotides (or CpG ODN) are short single-stranded synthetic DNA molecules that contain an unmethylated CG (Cytosine-guanine) di nucleotide in a specific base sequence (CpG motifs). The p refer to the phosphodiester backbone. These CpG motifs are not seen in eukaryotic DNA are considered pathogen-associated molecular patterns (PAMPs). The CpG PAMP is recognized by (TLR9). 3 types of, inhibitory ODNs have been identified.

Class B INH-ODNs are broadly reactive linear ODNs that potentially block CpG-induced activation in all TLR9-expressing cells.

Class R INH-ODNs are capable of making significant secondary structures and are less active in resting B cells.

Class G. Class G INH-ODNs contain multiple G3 triplets (like telomeric repeats) or G4 tetrads and are capable of making large G-aggregates. They inhibit not only signaling through the TLR9, but also activation through other TLRs. They are directly pro apoptotic in tumor cells and can additionally block stimulation of other immune cells.

ODN INH-47 is a palindromic variant of ODN INH-1 in which the CCT and GGG have been replaced by random nucleotide triplets. ODN INH-47 does not inhibit TLR9-induced activity in B cells or macrophages

Cat. #:ODNINH47-1 & ODNINH47-1

Sequence	5'-tatggattttaattaaatccata-3' (23mer)
Purity	≥95%
Form and storage	Powder. After reconstitution, Store at -20C up to 1 year
Shipping	Shipped at 4° C
Endotoxin	<0.001 EU/µg
Solubility	water, PBS or other buffers (up to 5 mg/ml)

Notes:

- 1) Bases in capital are phosphodiester and those in lower case are phosphorothioate. Palindromic sequences are underlined.
- 2) Negative control Contains GpC nucleotides instead of CpG.

General references: Krieg, A.M (1995). Nature, 374(6522):546-9. Ballaz ZK (2001) 167(9). Bauer, (2001). PNAS 98(16):9237-42. P.S. Lenert, (2003) *Arthritis Research and Therapy*, (8), no. 1, article R203

Related Items

- ODN006-1 ODNBW006 Type B CpG ODN structure feature at the 5' and A-type CpG ODN structure feature at the 3' end
 - ODN1668-1 ODN 1668-Type B murine TLR9 Agonist-Antigen grade
 - ODN1668-1NCODN 1668- Type B murine TLR9 Agonist (Negative Control), antigen grade
 - ODN1826-1 ODN 1826- Type B murine TLR9 Agonist-antigen grade
 - ODN2006-1 ODN 2006 -Type B-human TLR9 agonist-antigen grade
 - ODN2007-1 ODN 2007-Type B bovine/porcine TLR9 agonist-antigen grade
 - ODN2216-1 ODN 2216-Type A human TLR9 Agonist.-antigen grade
 - ODN2395-5 ODN 2395-Type C human/murine TLR9 agonist-antigen grade
 - ODN4084F-1 ODN 4084-Type B Inhibitory TLR9 Antagonist.-antigen grade
 - ODN4084F-5 ODN 4084-Type B Inhibitory TLR9 Antagonist.-antigen grade
 - ODNTT-1NC ODN TTAGGG-Class G Human-TLR 9 Antagonist, antigen grade
 - SIODN-1 Inhibitory iODN- class I/II hybrid, may also affect TLR7 and TLR8 signaling.
 - ODNIHN1-1 ODN INH-1-Class R (restricted) inhibitory ODN-TLR 9 Antagonist-antigen grade
 - ODNINH47-1 ODN INH-47-Class R (restricted) inhibitory ODN TLR9 Antagonist-Palindromic variant of ODN INH-1-antigen grade
 - ODN-NT-1 Neutral ODN control ODN without agonistic nor antagonistic activity antigen grade
 - ODN-PK-1 Mouse TLR9-agonist kit; contains 100 ug of ODN1585-1; ODN1826-1, ODN2395-1, and negative controls ODN1585-1NC; ODN1826-1-1NC, ODN2395-1NC
 - ODN-PK-2 Human TLR9-agonist kit; contains 100 ug of ODN2006-1; ODN2216-1; ODN2395-1; and negative controls ODN2006-1NC; ODN2216-1NC; ODN2395-1NC
 - ODN-PK-3 TLR9-antagonist kit; contains 100 ug of ODN2088-1; ODN4084-F; ODNINH-1; ODNINH-18; ONDTT-1.
 - ODN-PK-4 TLR9-A&C class agonist kit, Contains 100 ug of ODN1585-1; ODN2216-1; ODN2336-1; ODN 2395 and ODN M362; ODNSL03
- ODNINH-47 140805P**