

□ **Cat. #ODNIHN18-1**

TLR9 antagonist - Class B inhibitory ODN oligonucleotide, antigen grade

Size: 200 ug

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). Toll-Like Receptor 9 (TLR9) detects unmethylated CpG dinucleotides in bacterial or viral DNA inducing strong immunostimulatory effects. 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.

ODNINH-18 is a linear and class R ('restricted') inhibitory ODN. It contains an inhibitory DNA motif consisting of two nucleotide triplets, a proximal CCT and a more distal GGG, spaced from each other by four nucleotides. ODN INH-18 is a potent inhibitor of TLR9-induced B cells and macrophages. ODN INH-18 strongly blocks TLR9 activation in both human and mouse TLR9-expressing cells.

Cat.#:ODNINH1-18

Sequence	5'-cctggatgggaactaccgctgca-3' (24 mer)
Purity	≥90%
Form and storage	Powder. After reconstitution, Store at -20C up to 1 year
Shipping	Shipped at 4° C
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: Lenert P. et al., 2009 Arthritis Res Ther. 11(3):R79.

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
ODN1585-1	ODN 1585-Type A murine TLR9 agonist-Antigen grade
ODN1585-1NC	ODN 1585-Type A murine TLR9 agonist (Negative Control), antigen grade
ODN1585-5	ODN 1585-type A murine TLR9 agonist-Antigen grade
ODN1585-5NC	ODN 1585-Type A murine TLR9 agonist (Negative Control), antigen grade
ODN1585-B	ODN 1585-Type A murine TLR9 agonist Biotin Conjugate, antigen grade
ODN1585-F	ODN 1585-Type A murine TLR9 agonist FITC conjugate Antigen grade
ODN1668-1	ODN 1668-Type B murine TLR9 Agonist-Antigen grade
ODN1668-1NC	ODN 1668- Type B murine TLR9 Agonist (Negative Control), antigen grade
ODN1668-5	ODN 1668-Type B murine TLR9 Agonist-Antigen grade
ODN1668-5NC	ODN 1668- Type B murine TLR9 Agonist (Negative Control), antigen grade
ODN1668-B	ODN 1668 -Type B murine TLR9 Agonist biotin conjugate- Antigen grade
ODN1668-F	ODN 1668-Type B murine TLR9 Agonist FITC conjugate- Antigen grade
ODN1668-xxx	duplicate entry: ODN 1668 -Type B murine TLR9 Agonist biotin conjugate- Antigen grade
ODN1826-1	ODN 1826- Type B murine TLR9 Agonist-antigen grade
ODN1826-1NC	ODN 1826- Type B murine TLR9 Agonist (Negative Control), antigen grade
ODN1826-5	ODN 1826- Type B murine TLR9 Agonist-antigen grade
ODN1826-5NC	ODN 1826- Type B murine TLR9 Agonist (Negative Control), antigen grade
ODN1826-B	ODN 1826- Type B murine TLR9 Agonist Biotin conjugate, antigen grade
ODN1826-F	ODN 1826- Type B murine TLR9 Agonist FITC conjugate, antigen grade
ODN2006-1	ODN 2006 -Type B-human TLR9 agonist-antigen grade
ODN2006-1NC	ODN 2006- Type B human TLR9 Agonist (Negative Control), antigen grade
ODN2006-5	ODN 2006 -Type B-human TLR9 agonist-antigen grade
ODN2006-5NC	ODN 2006- Type B human TLR9 Agonist (Negative Control), antigen grade
ODN2006-B	ODN 2006 -Type B-human TLR9 agonist Biotin conjugate-antigen grade
ODN2006-F	ODN 2006 -Type B-human TLR9 agonist FITC conjugate- antigen grade
ODN2007-1	ODN 2007-Type B bovine/porcineTLR9 agonist-antigen grade
ODN2007-1NC	ODN 2007- Type B bovine/porcine TLR9 Agonist (Negative Control), antigen grade
ODN2007-5	ODN 2007-Type B bovine/porcineTLR9 agonist-antigen grade
ODN2007-5NC	ODN 2007- Type B bovine/porcine TLR9 Agonist (Negative Control), antigen grade
ODN2041-1	ODN 2041-Non-CpG ODN. Invitro control for rabbit cells. Antigen grade
ODN2088-1	ODN 2088- Murine Class I TLR9 Antagonist.-antigen grade
ODN2088-1NC	ODN 2088- Class I-Murine TLR9 Antagonist (Negative Control), antigen grade
ODN2088-5	ODN 2088- Murine Class I TLR9 Antagonist.-antigen grade
ODN2216-1	ODN 2216-Type A human TLR9 Agonist.-antigen grade
ODNINH-1	140805P