

Product Specification Sheet

□ **Cat. #** ODNDL03-1 **ODN-DSL03-** Type B CpG ODN and a TLR9 agonist, 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 refers 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 A stimulate the production of large amounts of Type I interferons, induce the maturation of pDCs. They are also strong activators of NK cells through indirect cytokine signaling.

Class B ODN is strong stimulators of human B cell and monocyte maturation. They also stimulate the maturation of pDC but to a lesser extent than Class A ODN and very small amounts of IFN α .

Class C ODN combine features of both type A and B. They contain a complete phosphorothioate backbone and a CpG-containing palindromic motif. They induce strong IFN- α production from DC and B cell stimulation.

ODN D-SL03 is a type C CpG ODN and a TLR9 agonist in a diverse vertebrate species, namely humans, mice, rats, rabbits, pigs and dogs. ODN D-SL03 is composed of double stem loops, a phosphorothioate backbone and two palindromes with AACGTT motif and TTCGAA motif in each loop. ODN D-SL03 is a robust inducer of IFN- α apparently due to the presence of the palindrome sequence. D-SL03 has been shown to potently activate human B cells, NK cells and mononuclear cells as well as PBMC/splenocytes obtained from diverse vertebrate species, namely mice, rats, rabbits, dogs and pigs. D-SL03 activates B cells and NK cells. ODN D-SL03 demonstrates anti-tumor activity in mice with established breast cancer.

Cat#: ODN-DSL03

Sequence	5'-tcg cga acg ttc gcc gcg ttc gaa cgc gg-3' (29 mer)
Purity	≥90%
Form and storage	Powder. After reconstitution, Store at -20C up to 1 year
Shipping	Shipped at 4° C

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. (2003) DNA Cell Biol. 22(10):621-31; Krieg A.M.(1995). Nature 374(6522):546-9; Ballaz ZK (2001) 167(9). Bauer (2001). PNAS 98 (16):9237-42; P. S. Yang L. et al., (2013) Int Immunopharmacol. 15(1):89-96.

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
ODN1668-1NC	ODN1668- 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 grade	ODN 2007-Type B bovine/porcineTLR9 agonist-antigen grade
ODN2216-1	ODN 2216-Type A human TLR9 Agonist.-antigen grade
ODN2395-5 grade	ODN 2395-Type C human/murine TLR9 agonist-antigen grade
ODN4084F-1 grade	ODN 4084-Type B Inhibitory TLR9 Antagonist.-antigen grade
ODNTT-1NC antigen grade	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 Antagonist-antigen grade	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
ODNM362-1 grade-antigen grade	ODN M362-Type C human/murine TLR9 agonist-antigen grade
ODNM362-1NC	ODN M362-Type C human/murine TLR9 agonist (negative control), antigen grade
ODNM362-5 grade-antigen grade	ODN M362-Type C human/murine TLR9 agonist-antigen grade
ODNM362-5NC	ODN M362-Type C human/murine TLR9 agonist (negative control), 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; ODNDL03

ODNDL03-1

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