

Product Specification Sheet

ODN 1585-Type A-Murine TLR9 agonist Controls and Conjugates (antigen grade)

□ Cat. # ODN1585-1	ODN 1585-Type A murine TLR9 agonist, antigen grade	Size: 1 mg
□ Cat. # ODN1585-5	ODN 1585-Type A murine TLR9 agonist, antigen grade	Size: 5 mg
□ Cat. # ODN1585-1NC	ODN 1585-Type A murine TLR9 agonist (Negative Control), antigen grade	Size: 1 mg
□ Cat. # ODN1585-5NC	ODN 1585-Type A murine TLR9 agonist (Negative Control), antigen grade	Size: 5 mg
▪ Cat. # ODN1585-F	ODN 1585-Type A murine TLR9 agonist FITC Conjugate, antigen grade	Size: 50 ug
▪ Cat. # ODN1585-B	ODN 1585-Type A murine TLR9 agonist Biotin Conjugate, antigen grade	Size: 50 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). 3 types of, stimulatory ODNs have been identified based upon immunostimulatory activities.

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 are 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 types 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 1585 is a Type A murine TLR9 agonist. It has been demonstrated that CpG ODN 1585, whose mechanism of action preferably involves indirect activation of the natural killer cells, induced regression of the MHC class I-deficient tumors TC1/A9 but not of the MHC class I-proficient tumors TC-1. This study infers that synthetic CpG ODN have a potential for the therapy of both MHC class I-proficient and -deficient tumors and thus could be also used against tumors that tend to down-regulate their MHC class I expression.

Cat. #:ODN1585-1 & ODN1585-5

Sequence	5'-ggGGTCAAC CG TTGAgggggg-3' (20 mer)
Mol. Wt	6431.5
Purity	≥95%
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)

Note:

- 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.

Cat. #:ODN1585-1NC & Cat. #:ODN1826-5NC (negative control)

Sequence	5'-ggGGTCAAG CTT GAgggggg-3' (20 mer)
Mol. Wt.	6431.5
Purity	≥95%
Form and Storage	Powder. Store at -20C upto 1 year.
Shipping	Shipped at 4° C
Endotoxin	<0.0001 EU/μg
Solubility	water, PBS or other buffers (up to 5 mg/ml)

Cat. #:ODN1585-F, FITC Conjugate

Sequence	5'-ggGGTCAAC CG TTGAgggggg -FITC' (20 mer)
Purity	≥95%
Form and Storage	Powder. After reconstitution, Store at -20C up to 1 year..
Shipping	Shipped at 4° C
Endotoxin	<0.0001 EU/μg
Solubility	water, PBS or other buffers (up to 5 mg/ml)

Cat. #:ODN1585-B, Biotin Conjugate

Sequence	5'-ggGGTCAAC CG TTGAgggggg -Biotin' (20 mer)
Purity	≥95%
Form and Storage	Powder. After reconstitution, Store at -20C up to 1 year.
Shipping	Shipped at 4° C
Endotoxin	<0.0001 EU/μg
Solubility	water, PBS or other buffers (up to 5 mg/ml)

General references: Krieg, A.M (1995). Nature, 374(6522):546-9. Ballaz ZK(2001) 167(9). Bauer, (2001).PNAS.98 (16):9237-42. Reinis M, Símová J, Bubeník J Int J Cancer. (2006) 118(7):1836-42

Related Items

Catalog# ProdDescription
 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
 ODN 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/porcineTLR9 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-1ODN 4084-Type B Inhibitory TLR9 Antagonist.-antigen grade
 ODN4084F-5ODN 4084-Type B Inhibitory TLR9 Antagonist.-antigen grade
 ODN11-1NC 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.

ODN 1585

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