

Product Specification Sheet

**ODN 2007 -Type B bovine/porcineTLR9 agonist-Controls and Conjugates (antigen grade)**

<input type="checkbox"/> <b>Cat. #ODN2007-1</b>	ODN 2007- Type B bovine/porcine TLR9 Agonist, antigen grade	<b>Size: 1 mg</b>
<input type="checkbox"/> <b>Cat. #ODN2007-5</b>	ODN 2007- Type B bovine/porcine TLR9 Agonist, antigen grade	<b>Size: 5 mg</b>
<input type="checkbox"/> <b>Cat. #ODN2007-1NC</b>	ODN 2007- Type B bovine/porcine TLR9 Agonist (Negative Control), antigen grade	<b>Size: 1 mg</b>
<input type="checkbox"/> <b>Cat. #ODN2007-5NC</b>	ODN 2007- Type B bovine/porcine TLR9 Agonist (Negative Control), antigen grade	<b>Size: 5 mg</b>

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 is strong stimulators of bovine/porcine 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 $\alpha$ .

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 $\alpha$  production from DC and B cell stimulation.

**ODN 2007** is a B type bovine/ porcine TLR9.

**Cat#:ODN2007-1 & ODN2007-5**

<b>Sequence</b>	5'- <b>tcgctggtgctgtttgtgctt</b> -3' (22 mer)
<b>Purity</b>	≥95%
<b>Mol.wt</b>	7057.2
<b>Form and storage</b>	Powder, store at -20°C. After reconstitution, Store at -20°C up to 6 months.
<b>Shipping</b>	Shipped at 4° C
<b>Solubility</b>	water, PBS or other buffers (up to 5 mg/ml)

**Cat. #:ODN2007-1NC & Cat. #:ODN2007-5NC (negative control)**

<b>Sequence</b>	5'- <b>tgctgcttgcgtttgtgctt</b> -3' (22 mer)
<b>Purity</b>	≥95%
<b>Mol.wt</b>	7057.2
<b>Form and Storage</b>	Powder, store at -20°C. After reconstitution, Store at -20°C up to 6 months
<b>Shipping</b>	Shipped at 4° C
<b>Endotoxin</b>	<0.001 EU/μg
<b>Solubility</b>	water, PBS or other buffers (up to 5 mg/ml)

**Notes:**

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

**General references:** Krieg, A.M nature. Ballaz ZK(2001) 167(9). Bauer, (2001),PNAS98(16):9237-42.Yuan S Cancer Biother Radiopharm. (2011)203-8

**Related Items:**

Catalog#	ProdDescription
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-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
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-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-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
ODN4084F-1	ODN 4084-Type B Inhibitory TLR9 Antagonist.-antigen grade
ODN4084F-5	ODN 4084-Type B Inhibitory TLR9 Antagonist.-antigen grade
ODN1585-1	ODN 1585-Type A murine TLR9 agonist-Antigen grade
ODN1585-1NC	ODN 1585-Type A murine TLR9 agonist (Negative Control), antigen grade
ODN2216-1	ODN 2216-Type A human TLR9 Agonist.-antigen grade
ODN2216-1NC	ODN 2216- Type A human TLR9 Agonist (Negative Control), antigen grade
ODN2007	rev140819P