



Product Specification Sheet

**ODN 1668-Type B-Murine TLR9 agonist Controls and Conjugates (antigen grade)**

<b>Cat. # ODN1668-1</b>	ODN 1668- Type B murine TLR9 Agonist, antigen grade	<b>Size: 1 mg</b>
<b>Cat. # ODN1668-5</b>	ODN 1668- Type B murine TLR9 Agonist, antigen grade	<b>Size: 5 mg</b>
<b>Cat. # ODN1668-1NC</b>	ODN 1668- Type B murine TLR9 Agonist (Negative Control), antigen grade	<b>Size: 1 mg</b>
<b>Cat. # ODN1668-5NC</b>	ODN 1668- Type B murine TLR9 Agonist (Negative Control), antigen grade	<b>Size: 5 mg</b>
<input type="checkbox"/> <b>Cat. # ODN1668-F</b>	ODN 1668- Type B murine TLR9 Agonist <b>FITC</b> Conjugate, antigen grade	<b>Size: 50 ug</b>
<b>Cat. # ODN1668-B</b>	ODN 1668- Type B murine TLR9 Agonist <b>Biotin</b> Conjugate, antigen grade	<b>Size: 50 ug</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 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 $\alpha$ .

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 1668** is a Type B murine TLR9 agonist.

**Cat. #:ODN1668-1 & ODN1668-5**

<b>Sequence</b>	5'-tccatgacgcttctgatgct-3' (20 mer)
<b>Mol. Wt</b>	6383
<b>Purity</b>	≥95%
<b>Form and storage</b>	Powder. After reconstitution, Store at -20C up to 1 year.
<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)

**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. #:ODN1668-1NC & Cat. #:ODN1668-5NC (negative control)**

<b>Sequence</b>	5'-tccatgagcttctgatcgt-3' (20 mer)
<b>Mol. Wt.</b>	6383
<b>Purity</b>	≥95%
<b>Form and Storage</b>	Powder. After reconstitution, Store at -20C up to 1 year.
<b>Shipping</b>	Shipped at 4° C
<b>Endotoxin</b>	<0.0001 EU/μg
<b>Solubility</b>	water, PBS or other buffers (up to 5 mg/ml)

**Cat. #:ODN1668-F, FITC Conjugate**

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

**Cat. #:ODN1668-B, Biotin conjugate**

<b>Sequence</b>	5'-tccatgacgcttctgatgct-Biotin' (20 mer)
<b>Mol. Wt.</b>	
<b>Purity</b>	≥95%
<b>Form and Storage</b>	Powder. After reconstitution, Store at -20C up to 1 year
<b>Shipping</b>	Shipped at 4° C
<b>Endotoxin</b>	<0.0001 EU/μg
<b>Solubility</b>	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. Heit A. (2004). Immunol. 172 (3):1501-7

**Related Items**

ODN1585-1, ODN1668-1, ODN1826-1, ODN2006-1, ODN2336-1, ODN2395-1, ODN2007-1, ODNM362-1, ODN2088-1 ODN2216-1, ODNINH1-1, ODN4084F-1, ODNINH1-1, ODNINH47-1, ODNNTT-1, GODN-1, CIODN-1, SIODN-1, DIODN-1, ATODN2-1, ATODN3-1