

Product Specification Sheet

ODN 2395 - Type C human/murine TLR9 agonist-Controls and Conjugates (antigen grade)

□ Cat. #ODN2395-1	ODN 2395- Type C human/ murine TLR9 Agonist, antigen grade	Size: 1 mg
□ Cat. #ODN2395-5	ODN 2395- Type C human/ murine TLR9 Agonist, antigen grade	Size: 5 mg
□ Cat. # ODN2395-1NC	ODN 2395- Type C human/ murine TLR9 Agonist (Negative Control), antigen grade	Size: 1 mg
□ Cat. # ODN2395-5NC	ODN 2395- Type C human/murine TLR9 Agonist (Negative Control), antigen grade	Size: 5 mg
▪ Cat. # ODN2395-F	ODN 2395- Type C human/ murine TLR9 Agonist FITC 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 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 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 2395 is a Class C ODN which stimulates B cells but also induces increased level of IFN-alpha production from PDCs. In asthma, as well as cancer studies, this ODN has been used to induce eosinophil-based dendritic cell maturation.

Cat. #:ODN2395-1 & ODN2395-5

Sequence	5'-tcgtcgttttcgggcgcgccg-3' (22 mer)
Mol. Wt	7047.6
Purity	≥95%
Form and storage	Powder. After reconstitution, Store at -20C up to 1 year
Shipping	Shipped at 4° C
Endotoxin	<0.002 EU/μg
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.

Cat. #ODN2395-1NC & Cat. #ODN2395-5NC (negative control)

Sequence	5'-tgctgcttttggggggccccc-3' (22 mer)
Mol. Wt.	
Purity	≥95%
Form and Storage	Powder. After reconstitution, Store at -20C up to 1 year.
Shipping	Shipped at 4° C
Endotoxin	<0.002 EU/μg
Solubility	water, PBS or other buffers (up to 5 mg/ml)

Cat. #:ODN2395-F, FITC Conjugate

Sequence	5'-tcgtcgttttcgggcgcgccg-FITC' (22 mer)
Purity	≥95%
Form and Storage	Powder. After reconstitution, Store at -20C up to 1 year.
Shipping	Shipped at 4° C
Endotoxin	<0.002 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. Ramin Lotfi Thomas Leukocyte Biology. (2008);83:

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
 ODN1668-1NC 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
 ODNTT-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.

ODN2395

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