ALPHA DIAGNOSTIC INTERNATIONAL

Product Specification Sheet

Core-iODN-Class I- potential TLR9 and TLR7 signaling inhibitor. (Antigen Grade)

□ Cat. # CIODN-1 Core-iODN-Class I-Murine TLR9 Antagonist, antigen grade **Size: 100 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.

Several groups have studied the sequence requirements, specificity, signaling pathways and kinetics of the TLR (Toll-like receptor) 9 suppression by 'inhibitory DNA motifs', which led to a revised classification of inhibitory ODNs.

Class I: G-stretch ODNs: TLR9-specific competitors, some iODNs may also affect TLR7 and TLR8 signaling

Class II: ODNs with telomeric repeats: TLR-independent inhibitors of STAT signaling (cellular uptake via an "ODN receptor"?)
Class III: Inhibitors of DNA uptake in a sequence independent manner
Class IV: Long phosphorothioate ODNs as direct competitors of TLR9 signaling in a sequence independent manner

Core iODN
Slightly modified phosphodiester versions of the most potent inhibitory ODNs were also able to profoundly block the immune activation of macrophages and proved to be valuable tools for in vivo use in experimental animal models of inflammatory and auto-immune diseases.

Cat.#: CIODN-1

Sequence	5'-tcctggagggg-3'
Mol. Wt	3583
Purity	≥95%
Form and storage	Powder. +4° C
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.

General references: Krieg,A.M(1995).Nature, 374(6522):546-9..Ballaz ZK(2001) 167(9). Bauer, (2001).PNAS.98(16):9237-42. Stunz LL(2002) Eur J Immunol.(5):1212-22.

Related Items
ODN2088-1, ODN4084F-1, ODNINH1-1, ODNINH47-1,ODN2336-1, ODN2395-1, ODN2007-1, ODNM362-1, ODN2216-1, Super-iODN Dual-iODN