ALPHA DIAGNOSTIC INTERNATIONAL

Product Specification Sheet

Life Technologies™ Your Molecular & Cell Technology Partner

Super-iODN- class I/II hybrid. Potential TLR7 and TLR8 signaling Inhibitor (Antigen Grade)

□ **Cat.SIODN-1** Super-iODN- class I/II hybrid.-Potential TLR7 and TLR8 signaling Inhibitor (Antigen Grade) **Size: 1 mg**

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 is an Inhibitory iODN. It contains a particularly potent sequence of an inhibitory ODN for *in vivo* use in rodents based on class I and class II sequences to combine inhibitory activity on TLRs and STAT signaling.

Cat. #: CIODN-1

Sequence	5'-cctcaatagggtgagggg-3' (18mer)
Mol. Wt	4920
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.

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.

for in vitro research only

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-1	ODN 4084-Type B Inhibitory TLR9 Antagonist.-antigen grade
ODN4084F-5	ODN 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.

SIODN-1 rev**140220N**

130215P

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