ALPHA DIAGNOSTIC INTERNATIONAL

Product Specification Sheet

AT-ODN-1-Non-CpG AT rich ODN.TLR9 agonist(Antigen grade)

Cat#ATODN1-1 AT-ODN-1- Non-CpG AT rich ODN.TLR9 agonist 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, inhibitory ODNS have been identified.

Class B INH-ODNs are broadly reactive linear ODNs that potently block CpG-induced activation in all TLR9-expressing cells.

Class R INH-ODNs are capable of making significant secondary structures and are less active in resting B cells.

Class G. Class G INH-ODNs contain multiple G3 triplets (like telomeric repeats) or G4 tetrads and are capable of making large G-aggregates. They inhibit not only signaling through the TLR9, but also activation through other TLRs. They are directly pro apoptotic in tumor cells and can additionally block stimulation of other immune cells.

Although the AT-ODN does not contain any CpG sequences, it exerts mitogenic activity in B cells and augments Th-1-type immune responses via Toll-like receptor. It has been shown that AT-ODNs with a specific loop and stem structure are important factors for immunostimulatory activity.

AT-ODN-1 is an IFN-γ inducing non-CpG ODN of the AT-type, found in the Malaria genome; it has TLR9 dependent immune activation.

Cat. #ATODN1-1

Sequence	5'-tata*attttaatttc*caaga-3' (20 mer)
Mol. Wt	6413
Purity	≥95%
Form and storage	Powder. Store at -20C up to 1 year.
Shipping	Shipped at 4º C
Endotoxin	<0.002 EU/µg
Solubility	water, PBS or other buffers (up to 5 mg/ml)

Notes:

1) Nucleotides depicted in italics show AT-ODN sequence.

General references: Krieg, A.M nature. Ballaz ZK(2001) 167(9). Bauer, (2001).PNAS98(16):9237-42 3 P. S. Lenert, (2003)*Arthritis Research and Therapy*, (8), no. 1, article R203

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.

ATODN1-1 rev**140220N**

Alpha Diagnostic Intl Inc., 6203 Woodlake Center Dr, San Antonio, TX 78244, USA; **Email**: service@4adi.com
☎ (800) 786-5777; (210) 561-9515; **Fax**: (210) 561-9544; **Web Site**: www.4adi.com