

ODN BW006 Type B CpG at the 5' and A-type CpG ODN at the 3' end (Antigen grade)

☐ **Cat#ODN006** ODN BW006 Type B CpG at the 5' and A-type CpG ODN at the 3' end **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, inhibitory ODNs have been identified.

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 is 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 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 BW006 is a unique ODN with Type B structural feature at 5' and Type B structural feature at CpG ODN at the 3' end It was found that BW006 could facilitate the rabies vaccine to induce an earlier and more vigorous RVNAb response, resulting in more effective protection of mice from rabies virus challenge. In addition, three shots of rabies vaccine with BW006 induced compatible RVNAb level with that induced by five shots of aluminum-adjuvanted rabies vaccine. These data reveal that BW006 could be used as a promising adjuvant to replace of or combine with aluminum for developing more effective rabies vaccines.

Cat# ODN006-1

Sequence	5'-tcgacgttcgctcgttcgctc-3'(23 mer)
Purity	≥95%
Form and storage	Powder. Store at -20C up to 1 year.
Shipping	Shipped at 4° C
Endotoxin	<0.0002 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.
- 2) Contains GpC nucleotides instead of CpG.

General references: Krieg,A.M(1995). Nature, 374(6522):546-9. Ballaz ZK(2001) 167(9). Bauer, (2001). PNAS98 (16):9237-42 Wang X, Vaccine. (2008) 28;26(15):1893-901.

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
ODN1668-1NCODN 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.

ODN006

rev140220N