



Product Specification Sheet

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 are 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'-tcgacgttcgctgctcgttc-3' (23 mer)
Mol. Wt	
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.

Related Items

ODN1585-1, ODN1668-1, ODN1826-1, ODN2006-1, ODN2336-1, ODN2395-1, ODN2007-1, ODNM362-1, ODN2088-1 ODN2216-1, ODNINH1-1, ODN4084F-1, ATODN1-1, ATODN2-1

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