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| **DESCRIPTION** |  |

CpG oligonucleotides are synthetic oligonucleotides containing CpG motifs (CpG ODN). These CpG motifs are widely used for activation of immune cells, e.g. B cells.

ODN 2006 is a CpG ODN type B specific for human TLR9. Type B CpG ODNs are recognized by Toll-like receptor 9 (TLR9) leading to strong immunostimulatory effects. They strongly activate B cells but stimulate weakly IFN-α secretion. CpG type B is able to modulate the immune response in both human and mice.

The human TLR9 is expressed in B cells and plasmacytoid dendritic cells (PDC). Other two types of stimulatory CpG ODNs, types A and C, differ from type B in their immune-stimulatory activities. Type A CpG ODNs induces high IFN-α production from plasmacytoid dendritic cells (pDC) but low activation of B cell proliferation. Type C CpG ODNs combine both feature of types A and B and induce strong IFN-α production from pDC and B cell stimulation.

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| **SPECIFICATIONS** |  |

Specificity: human TLR9 agonist

Sequence: 5’-tcgtcgttttgtcgttttgtcgtt-3’

Note: Phosphorothioate Sodium Salt Linkage

Quantity: 1 mg and 10 mg

Source: Synthetic.

Formulation: Lyophilized.

Storage: 2-8°C

Solubility: 5 mg/ml in water

For Research Grade Use Only.

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