

Mouse Specific TLR9 Ligand (Type B): CpG ODN 1668 and Negative Control

Sequence: CpG ODN- 5' T*C*A*T*G*A*C*G*T*T*C*T*G*A*C*G*T*T 3' (* Phosphorothioate bonds)
Negative Control oligo-5' TCCATGAGCTTCCTGAGCTT 3'

Cat. No.: IMG-2209M

Content: 1 vial of CpG ODN: 100 µg (16.4 nmole) in 100 µl
1 vial of Negative Control: 100 µg (16.4 nmole) in 100 µl

Concentration: 1 mg/ml each in sterile water

Storage and Stability

Shipped at 4°C. Upon receipt, aliquot and store at -20°C. Product is stable in its undiluted form for 6 months at -20°C. Prepare further dilutions by adding the appropriate amount of sterile water or tissue culture media.

Usage

Activation of mouse TLR9.

Amount per assay

Stimulation of mouse TLR9 has been reported with 5-20 µg/ml.

Description

Synthetic oligodeoxynucleotides (ODN) containing unmethylated deoxycytosine-deoxyguanosine (CpG) motifs. These CpG motifs are present at a 20 fold greater frequency in bacterial DNA than mammalian DNA. CpG ODNs are recognized by Toll-like receptor 9 (TLR9). Two types of CpG ODNs have been identified based on their distinct activity on plasmacytoid dendritic cells (pDC), which is the key sensors of the CpG motifs. CpG Type A induces IFN- α production in pDC whereas Type B strongly activates B cells and weakly activates IFN- α stimulation. The CpG ODN sequence differs between human and mouse, however both negative controls contain GpC instead of CpG.

References

1. Krieg, A.M. et al.,1995. CpG motifs in bacterial DNA trigger direct B-Cell activation. *Nature*, 374(6522):546-9.
2. Krug A. et al., 2001. Identification of CpG oligonucleotide sequences with high induction of IFN-alpha/beta in plasmacytoid dendritic cells. *Eur J Immunology*, 31 (7): 2154-63.

Research purposes only. Not for diagnostic or in vivo use. This product is guaranteed to perform as indicated on the datasheet for one year from the date of purchase.