

ODN ligand

CpG ODN (2216), TLR9 ligand (Class A)

CATALOG # AAA78391	REACTIVITY Mouse, Human	APPLICATIONS Functional Assay
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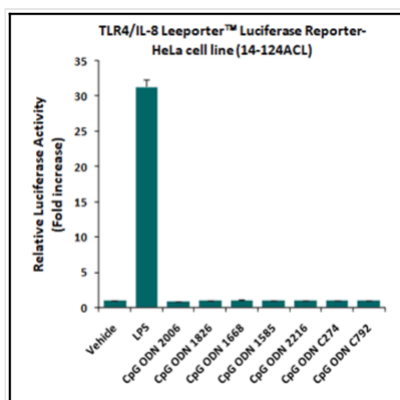
PRODUCT SYNONYMS

ODN; CpG ODN (2216); TLR9 ligand (Class A); ODN ligand

PRODUCT SPECIFICATIONS

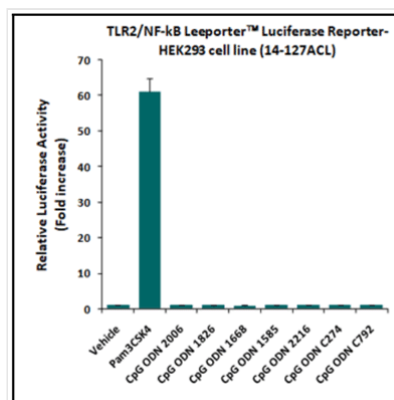
Reactivity	Mouse, Human
Form/Format	1 mg/ml in endotoxin-free water
Applicable Applications for ODN ligand	FA (Functional Assay)
Preparation and Storage	Upon receipt, store at -20°C (Stable for up to at least 6 months). Avoid frequent freeze/thaw cycles.

IMAGES



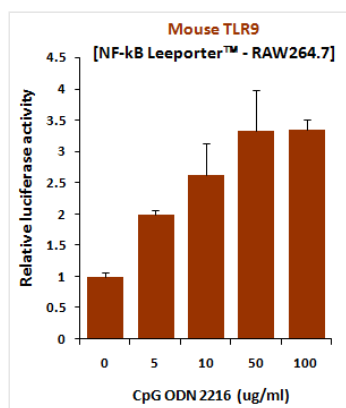
Application Data

CpG ODNs did not show any TLR4 agonist activity. TLR4/IL-8 ReporterTM HeLa cells were treated with various CpG ODNs at 100 ug/ml as well as a positive TLR4 agonist, LPS, at 10 ng/ml for 16 h, and luciferase activity was then analyzed.



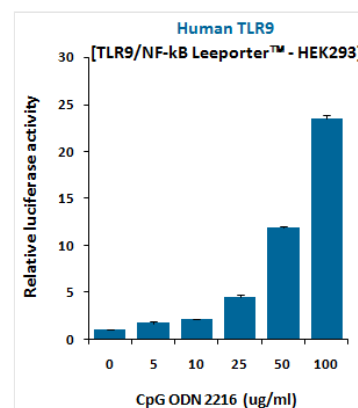
Application Data

CpG ODNs did not show any TLR2 agonist activity. TLR2/NF-kB ReporterTM HEK293 cells were treated with various CpG ODNs at 100ug/ml as well as a positive TLR2 agonist, Pam3CSK4, at 10 ng/ml for 16 h, and luciferase activity was then analyzed.



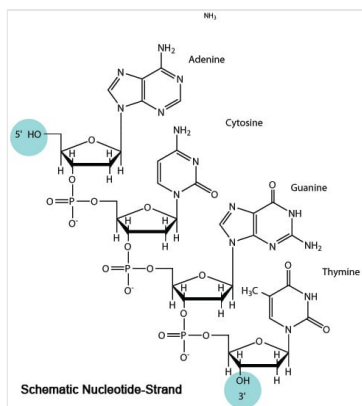
Application Data

Fig-3. Induction of mouse TLR9 activity by CpG ODN 2216.



Application Data

Fig-2. Induction of human TLR9 activity by CpG ODN 2216.



Structure

Fig-1: chemical structure of CpG ODN

ADDITIONAL INFORMATION

Related Product Information for ODN ligand

Sequence: 5'-gggggaCGatCGtCGggggg-3' (Class A ODN 2216: Bases are phosphorothioate.) Synthetic oligodeoxynucleotides (ODN) containing unmethylated deoxycytosine-deoxyguanosine (CpG) motif are equivalent to bacterial DNA in the immunostimulatory activity, which can induce innate immunity via Toll-like receptor 9 (TLR9) in mammals. There are three major classes of CpG ODNs, and each ODN class exhibits different stimulatory effects on immune cell activation. Class A ODNs are potent inducers of IFN-alpha that leads to the plasmacytoid dendritic cell (pDC) maturation. Class B ODNs are relatively weak inducers of type I IFNs but strong stimulators of human B cells and monocyte maturation. Class C ODNs combine elements of both Classes A and B ODNs, which can induce IFN-alpha in pDC and activation of B cells.

Product Categories/Family for ODN ligand

[Ligands and Inhibitors](#); [TLR Ligands](#)

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/human-mouse-ligand/odn/78391>