

Validation data for ODN 2395 VacciGrade™

<https://www.invivogen.com/odn2395-vaccigrade>

For research use only

Version 24C14-AK

ODN 2395 VacciGrade™ is a synthetic immunostimulatory oligonucleotide (ODN) that contains unmethylated CpG dinucleotides. ODN 2395 VacciGrade™ is a Class C CpG ODN specific for the human (h) and mouse (m) Toll-like receptor 9 (TLR9). In HEK-Blue™-derived reporter cells, ODN 2395 efficiently activates hTLR9 and mTLR9 (Figure 1). Moreover, ODN 2395 VacciGrade™ is able to activate the hTLR9-mediated NF-κB and IRF pathways as verified using InvivoGen's THP1-Dual™ hTLR9 cells (Figure 2). This monocytic cell line expresses the human TLR9 gene as well as two inducible reporter genes for the NF-κB-inducible SEAP (secreted embryonic alkaline phosphatase) and IRF-inducible Lucia luciferase.

Dose-dependent NF-κB response in HEK-Blue™-derived cells

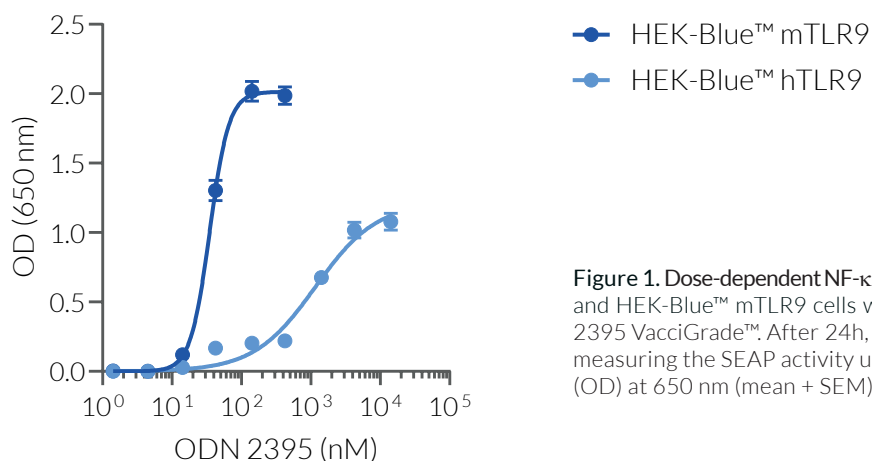


Figure 1. Dose-dependent NF-κB response in HEK-Blue™-derived cells. HEK-Blue™ hTLR9 and HEK-Blue™ mTLR9 cells were incubated with increasing concentrations of ODN 2395 VacciGrade™. After 24h, the TLR9-induced NF-κB responses were assessed by measuring the SEAP activity using QUANTI-Blue™. Data are shown as optical density (OD) at 650 nm (mean + SEM).

Dose-dependent NF-κB and IRF responses in THP1-Dual™ hTLR9 cells

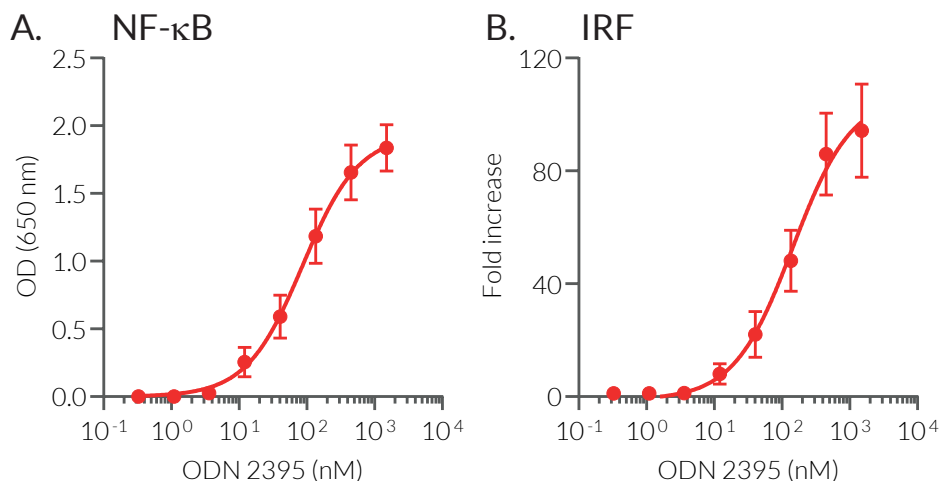


Figure 2. Dose-dependent NF-κB and IRF responses in THP1-Dual™ hTLR9 cells. Cells were incubated with increasing concentrations of ODN 2395 VacciGrade™. After 24h, the hTLR9-induced (A) NF-κB and (B) IRF responses were assessed by measuring SEAP and Lucia activity using QUANTI-Blue™ and QUANTI-Luc™, respectively. Data are shown as optical density (OD) at 650 nm or in fold increase over non-induced cells (mean + SEM).

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