

# Validation data for ODN 1018 Vaccigrade™

<https://www.invivogen.com/odn1018-vaccigrade>

For research use only

Version 23J27-AK

ODN 1018 (CpG 1018®, 1018 ISS) is a synthetic immunostimulatory oligonucleotide (ODN) that contains unmethylated CpG dinucleotides. ODN 1018 Vaccigrade™ is able to activate the murine (m)TLR9, but not the human (h)TLR9 in HEK-derived cells (Figure 1). Interestingly, in THP-1-derived monocytes overexpressing hTLR9, ODN 1018 Vaccigrade™ strongly activates hTLR9-mediated NF-κB and IRF induction (Figure 2).

## Dose-dependent human and murine TLR9 activation in HEK-Blue™-derived cells (NF-κB response)

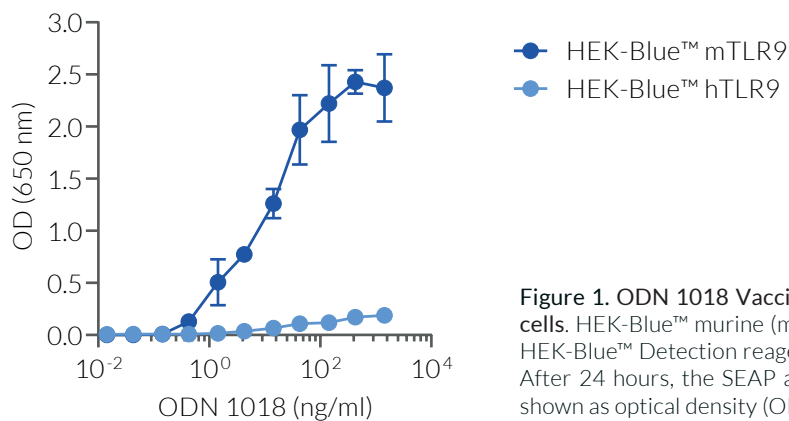


Figure 1. ODN 1018 Vaccigrade™ is a potent activator of murine TLR9 in HEK-derived cells. HEK-Blue™ murine (m)TLR9 and HEK-Blue™ human (h)TLR9 cells were incubated in HEK-Blue™ Detection reagent with increasing concentrations of ODN 1018 Vaccigrade™. After 24 hours, the SEAP activity in the cell culture supernatant was assessed. Data are shown as optical density (OD) at 650 nm (mean ± SEM).

## Dose-dependent human TLR9 activation in THP1-Dual™-derived cells (NF-κB and IRF responses)

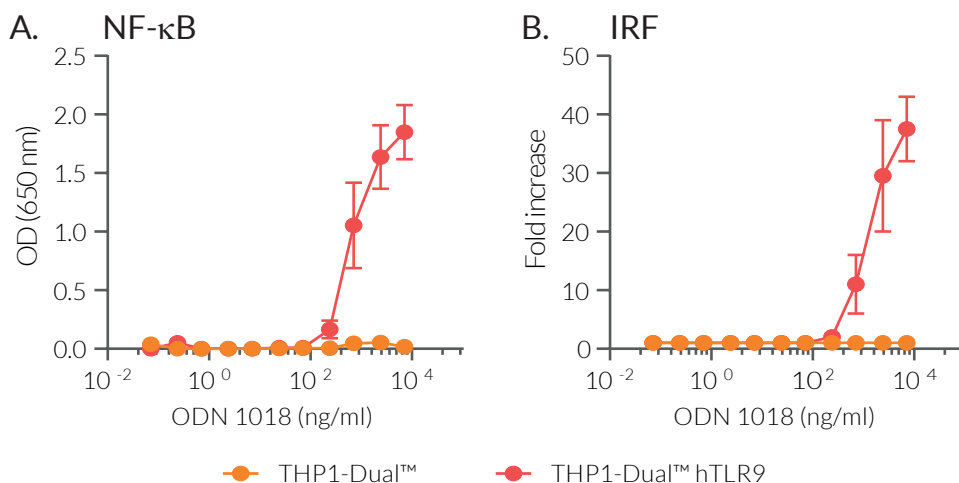


Figure 2. ODN 1018 Vaccigrade™ is a potent activator of human TLR9 in THP-1-derived cells. THP1-Dual™ and THP1-Dual™ human (h)TLR9 cells were incubated with increasing concentrations of ODN 1018 Vaccigrade™. After 24h, the hTLR9-induced (A) NF-κB and (B) IRF responses were assessed by measuring SEAP and Lucia activity using QUANTI-Blue™ and QUANTI-Luc™, respectively. Data are shown as optical density (OD) at 650 nm or in fold response over non-induced cells (mean ± SEM).

### TECHNICAL SUPPORT

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