Validation data for ODN 1826

https://www.invivogen.com/odn1826

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Version 24B22-AK

ODN 1826 is a synthetic immunostimulatory oligonucleotide (ODN) that contains unmethylated CpG dinucleotides. ODN 1826 is a Class A CpG ODN with a preference for the mouse Toll-like receptor 9 (mTLR9). In HEK-Blue™-derived reporter cells, ODN 1826 efficiently activates mTLR9, but not human (h)TLR9 **(Figure 1)**. Interestingly, ODN 1826 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 overexpresses 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.

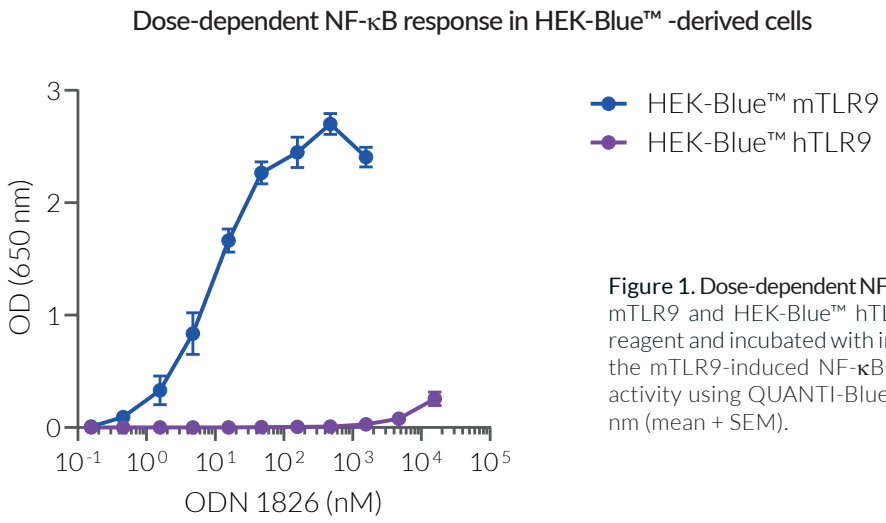

Figure 1. Dose-dependent NF-κB response in HEK-Blue™-derived cells. HEK-Blue™ mTLR9 and HEK-Blue™ hTLR9 cells were cultured in HEK-Blue™ Detection reagent and incubated with increasing concentrations of ODN 1826. After 24h, the mTLR9-induced NF-κB response was assessed by measuring the SEAP activity using QUANTI-Blue™. Data are shown as optical density (OD) at 650 nm (mean + SEM).

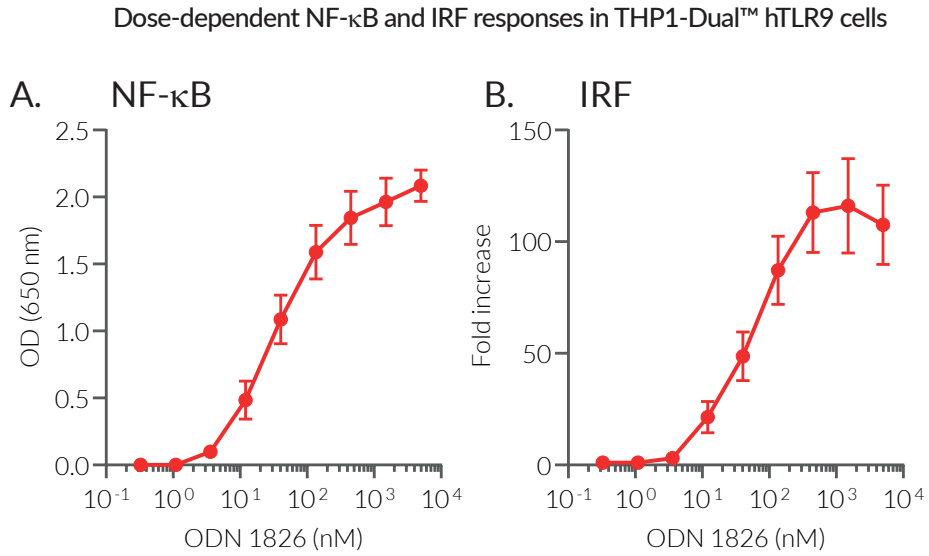

Figure 2. Dose-dependent NF-κB and IRF responses in THP1-Dual™ hTLR9 cells. Cells were incubated with increasing concentrations of ODN 1826. After 24h, the hTLR9-induced **(A)** NF-κB and **(B)** IRF responses were assessed by measuring SEAP and Lucia activity using QUANTI-Blue™ and QUANTI-Luc™, respectively. Data are shown as optical density (OD) at 650 nm or in fold increase over non-induced cells (mean + SEM).

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