Validation data for RAW-Blue™ Cells

https://www.invivogen.com/raw-blue

For research use only

Version 23B16-AK

RAW-Blue™ cells are designed to monitor the NF-κB and AP-1 responses upon PRR (pattern recognition receptor) stimulation. These cells stably express an NF-κB/AP-1-inducible secreted embryonic alkaline phosphatase (*SEAP*) reporter gene. Levels of SEAP activities are readily assessable in the supernatant using QUANTI-Blue™ Solution, a SEAP detection medium. RAW-Blue™ cells are derive from the murine RAW 264.7 macrophage cell line, which has been reported to express many pattern recognition receptors (PRRs), as verified using RT-PCR **(Figure 1)** and by monitoring the NF-κB-response upon stimulation using various PRR-ligands **(Figure 2).**

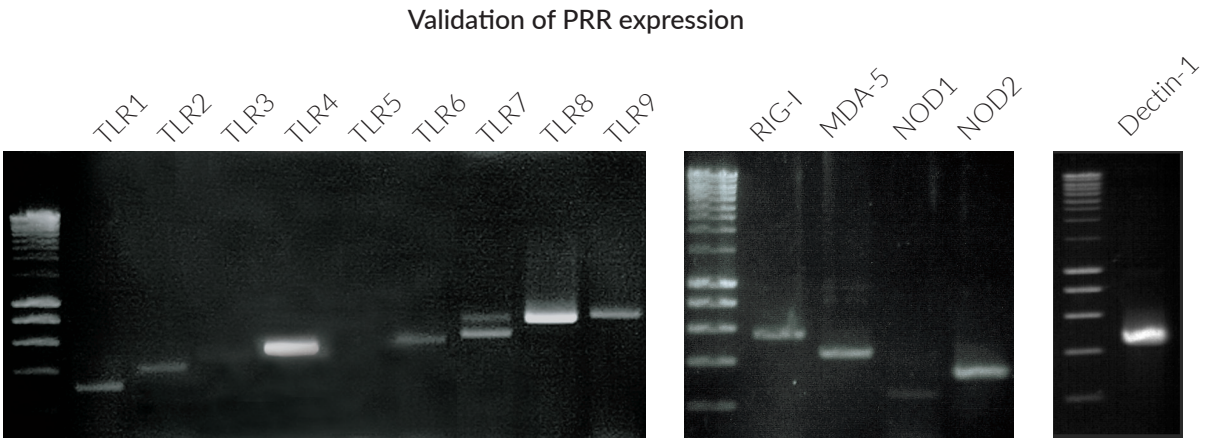

Figure 1: Expression profile of various PRRs in RAW-Blue™ cells. RT-PCR results show endogenous expression of Toll-like receptors TLRs (1-9), RIG-I, MDA-5, NOD1, NOD2 and Dectin-1 in RAW-Blue™ cells.

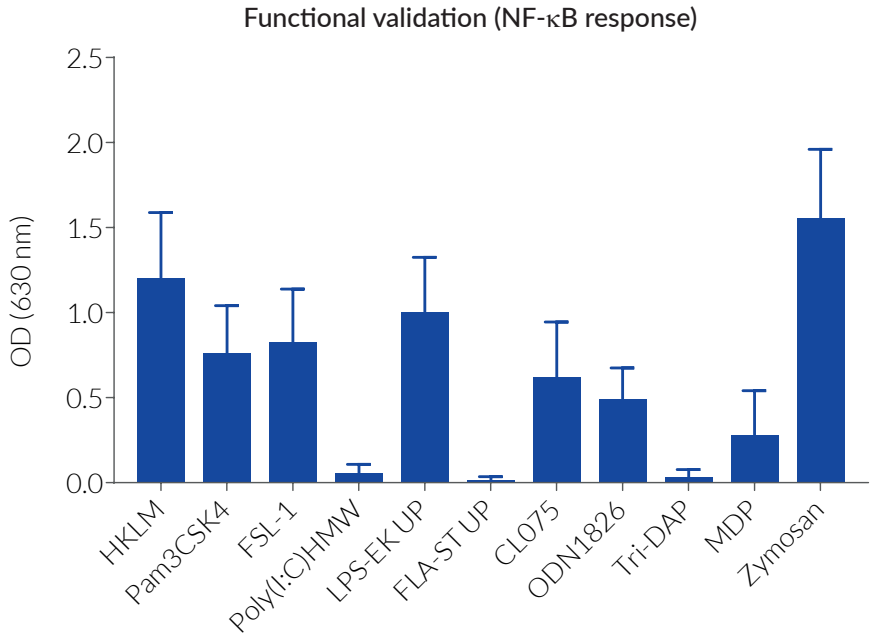

Figure 2: NF-κB responses in RAW-Blue™ cells to various PRR ligands. Cells were incubated with TLR, Dectin and NOD agonists: TLR2 (HKLM, 1x10^8 cells/ml), TLR1/2 (Pam3CSK4, 1 µg/ml), TLR2/6 (FSL-1, 1 µg/ml), TLR3 (Poly(I:C) HMW, 100 µg/ml), TLR4 (LPS-EK, 10 µg/ml), TLR5 (FLA-ST Ultrapure (UP), 10 µg ml), TLR7 (CL075, 10 µg/ml), TLR9 (ODN1826, 10 µg/ ml), NOD1 (Tri-DAP, 10 µg/ml), NOD2 (MDP, 10 µg/ml) and Dectin-1 (Zymosan, 100 µg/ml). After 24h incubation, TLR and NOD stimulation was assessed by measuring the levels of SEAP using QUANTI-Blue™. Data are shown as optical density (OD) at 630 nm (mean ± SEM).

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