Validation data for C12-iE-DAP

https://www.invivogen.com/c12-ie-dap

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Version 24C21-MM

C12-iE-DAP is a synthetic NOD1 agonist. It is an acylated derivative of the dipeptide iE-DAP (γ-D-Glu-mDAP), present in the peptidoglycan of a subset of bacteria that include Gram-negative bacilli and some Gram-positive bacteria such as *Bacillus subtilis* and *Listeria monocytogenes*. Upon C12-iE-DAP recognition, NOD1 oligomerizes and triggers downstream signaling pathways, including activation of NF-κB and MAPKs, leading to the production of pro-inflammatory cytokines. The biological activity of C12-iE-DAP has been tested using InvivoGen's HEK-Blue™ hNOD1 cells which stably express human NOD1 and an NF-κB-inducible secreted embryonic alkaline phosphatase (SEAP) reporter. In these cells, C12-iE-DAP is more potent than iE-DAP at inducing hNOD1 responses **(Figure 1)**.

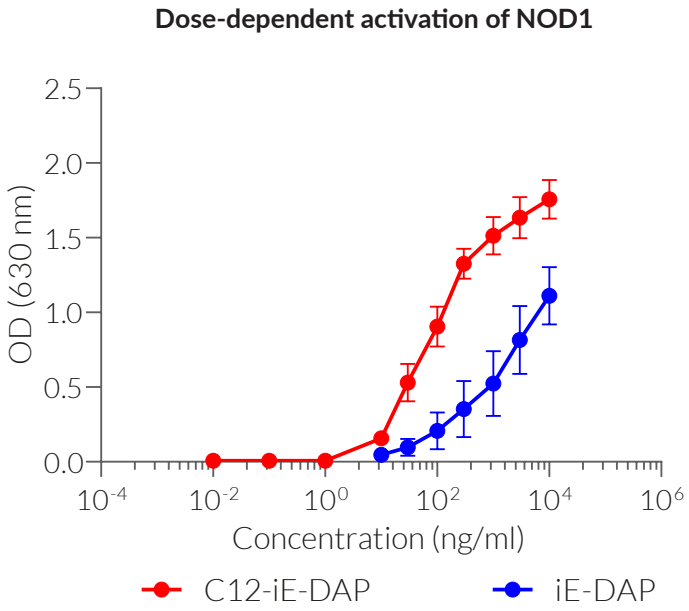

Figure 1. C12-iE-DAP is a potent activator of human (h)NOD1. HEK-Blue™ hNOD1 cells were incubated in HEK-Blue™ Detection medium and stimulated with increasing concentrations of C12-iE-DAP and iE-DAP. After 24h incubation, the levels of NF-κB-induced SEAP were determined by reading the optical density (OD) at 630 nm (mean ± SEM).

TECHNICAL SUPPORT
InvivoGen USA (Toll-Free): 888-457-5873
InvivoGen USA (International): +1 (858) 457-5873
InvivoGen Europe: +33 (0) 5-62-71-69-39
InvivoGen Asia: +852 3622-3480
E-mail: info@invivogen.com