Validation data for MDP

https://www.invivogen.com/mdp

For research use only

Version 23J20-MM

MDP (MurNAc-L-Ala-D-isoGln, also known as muramyl dipeptide) is a synthetic immunoreactive peptide. It is the minimal bioactive peptidoglycan motif present in almost all bacteria. MDP was first identified as an active component in Freund's complete adjuvant. It is recognized by the cytosolic receptor NOD2. Upon MDP recognition, NOD2 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 MDP has been tested using InvivoGen's HEK-Blue™ hNOD2 cells which stably express human NOD2 and an NF-κB-inducible secreted embryonic alkaline phosphatase (SEAP) reporter **(Figure 1)**.

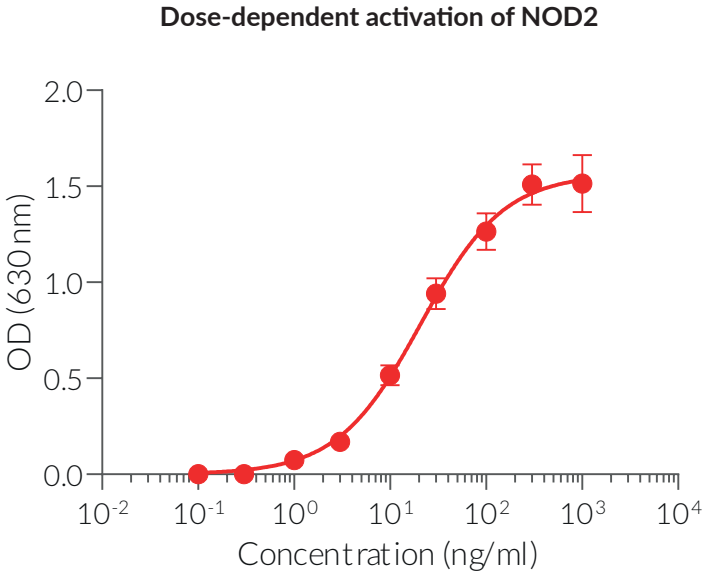

Figure 1. MDP is a potent activator of human (h)NOD2. HEK-Blue™ hNOD2 cells were incubated in HEK-Blue™ Detection medium and stimulated with increasing concentrations of MDP. After 24h incubation, the levels of NF-κB-induced SEAP were determined by reading the optical density (OD) at 630 nm (mean ± SEM).

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