

Validation data for LL-37

<https://www.invivogen.com/ll-37>

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Version 22F14-AK

LL-37, also known as hCAP18, is the C-terminal part of the only human cathelicidin identified human cationic antimicrobial protein (hCAP). This synthetic peptide has been shown to suppress the inflammatory response induced by lipopolysaccharide (LPS) and other Toll-like Receptors (TLR) ligands. It inhibits the activation of TLR2 and TLR4 by preventing the binding of specific agonists to their respective receptor. The ability of LL-37 to suppress human (h)TLR4 signaling was validated using InvivoGen's THP-1 Dual™ reporter cells (**Figure 1**). These cells stably express an NF- κ B/AP-1-inducible SEAP (secreted embryonic alkaline phosphatase) reporter gene. Additionally, they endogenously express hTLR2 as well as hTLR4.

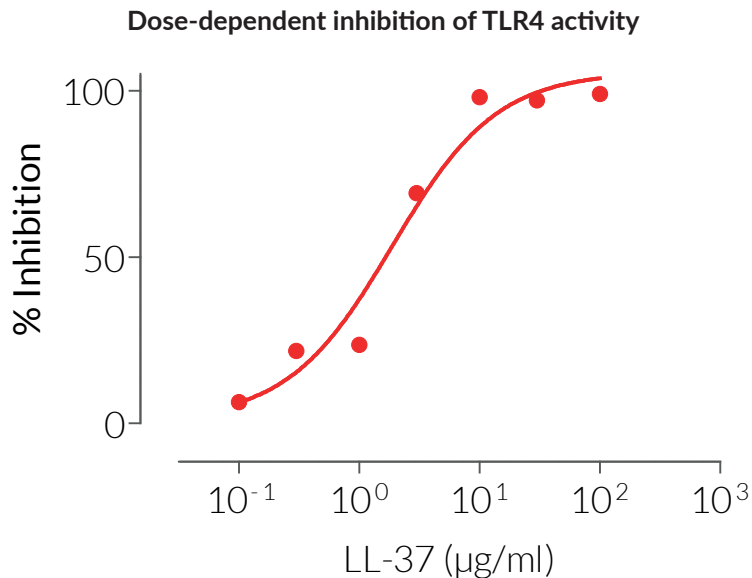


Figure 1: LL-37 is a potent inhibitor of hTLR4 signaling pathways.

THP-1 Dual™ cells were incubated in the presence of increasing concentrations of LL-37 together with 100 ng/ml LPS-EB Ultrapure (TLR4 agonist) overnight at 37°C. The next day, the neutralizing activity of LL-37 was determined by measuring the reduction of SEAP production in the supernatant using the QUANTI-Blue™ Solution detection reagent. Data are shown in percentage (%) of inhibition.

TECHNICAL SUPPORT

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