Validation data for Cholesterol Crystals

https://www.invivogen.com/cholesterol-crystals-nlrp3-inflammasome-inducer

For research use only

Version 25D04-NJ

Cholesterol crystals are the hallmark of atherosclerosis. They strongly stimulate the NLRP3 inflammasome-dependent induction of pro-inflammatory cytokines, including interleukin 1β (IL-1β). The ability of InvivoGen's cholesterol crystals to induce the NLRP3 inflammasome has been validated using THP1-Null2 and THP1 KO-NLRP3 cells. The production and release of IL-1β was measured using HEK-Blue™ IL-1β cells. The treatment with cholesterol crystals induced IL-1β secretion in a dose-dependent manner **(Figure 2)**.

Microscopic evaluation of cholesterol crystals

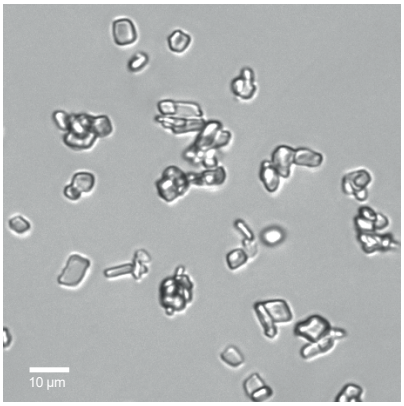

Figure 1. Microscopic analysis of Cholesterol Crystals. Cholesterol crystal particles resuspended in sterile water.

NLRP3 inflammasome activation by cholesterol crystals

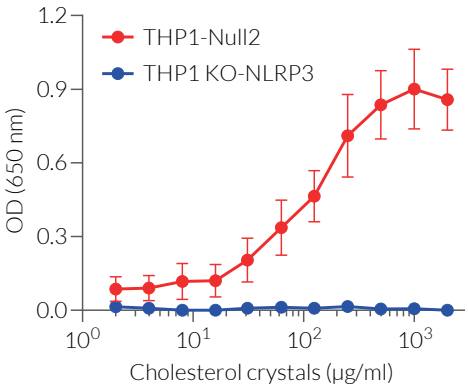

Figure 2. NLRP3-dependent IL-1β secretion upon treatment with cholesterol crystals. THP1-Null2 and THP1 KO-NLRP3 cells were primed for 3 hours with LPS-EK (1 µg/ml) prior to incubation with increasing concentrations of cholesterol crystals. After overnight incubation, the IL-1β secretion was assessed in the culture supernatant using HEK-Blue™ IL-1β sensor cells and the SEAP detection reagent QUANTI-Blue™ Solution. Data is shown as optical density (OD) at 650 nm (mean ± SD).

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