Validation data for OxPAPC

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Version 22F22-AK

Oxidized PAPC (OxPAPC) is a bioactive principal component of minimally modified low-density lipoproteins (MM-LDL). This phospholipid inhibits Toll-like receptor 2 (TLR2) and TLR4 signaling. It acts by competing with LPS-binding protein (LBP), CD14, and myeloid differentiation protein 2 (MD-2), thus blocking the signaling induced by bacterial lipopeptides and lipopolysaccharide (LPS). The inhibitory activity of OxPAPC was validated using InvivoGen's HEK-Blue™ hTLR4 reporter cells (Figure 1). These cells stably express hTLR4 as well as an NF-κB/AP-1-inducible SEAP (secreted embryonic alkaline phosphatase) reporter gene.



Inhibition of TLR4 signaling

Figure 1. OxPAPC inhibits human TLR4 signaling pathways.

HEK-blue[™] hTLR4 reporter cells were incubated with 1 ng/ml or 10 ng/ml of LPS-EB Ultrapure (TLR4 agonist) either alone (blue bars) or with 30 ng/ml OxPAPC (red bars) overnight at 37°C. The next day, the neutralizing activity of OxPAPC was determined by measuring the reduction of SEAP production in the supernatant using the QUANTI-Blue[™] Solution detection reagent. The optical density (OD) at 630 nm is shown as mean ± SEM.

