

Validation data for Chloroquine

<https://www.invivogen.com/chloroquine>

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Version 22F10-AK

Chloroquine is a widely used inhibitor for studying autophagy and the role of endosomal acidification in cellular processes, i.e. intracellular Toll-like receptor (TLR) signaling. By rising the pH in acidic compartments of cells, this weak base has an extensive range of biological effects. The ability of chloroquine to inhibit human (h)TLR9 signaling was validated using InvivoGen's HEK Blue™ hTLR9 reporter cells (**Figure 1**). These cells overexpress the endosomal hTLR9. Additionally, they stably express an NF- κ B/AP-1-inducible secreted embryonic alkaline phosphatase (SEAP) reporter gene.

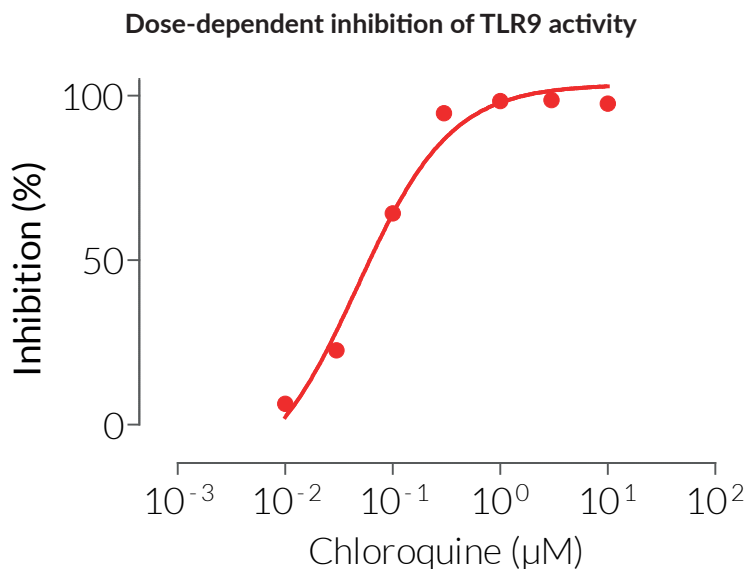


Figure 1: Chloroquine is a potent inhibitor of human TLR9 signaling pathway.

HEK Blue™ hTLR9 cells were incubated in the presence of increasing concentrations of chloroquine for 3 hours before adding 0.3 µg/ml ODN 2006 (TLR 9 agonist). After overnight incubation at 37°C, the neutralizing activity of chloroquine 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 of the maximal TLR9 activation.

TECHNICAL SUPPORT

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