Validation data for HEK-Blue™ TL1A Cells

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Version 24L18-NJ

HEK-Blue™ TL1A cells allow the detection of bioactive tumor necrosis factor (TNF)-like 1A (TL1A) by monitoring AP-1/NF-κB activation. These human embryonic kidney 293 (HEK293)-derived cells express the human DR3 (Death Receptor 3) homotrimeric receptor for TL1A, as well as an AP-1/NF-κB-inducible secreted embryonic alkaline phosphatase (SEAP) reporter. HEK-Blue™ TL1A cells respond to human and murine TL1A (**Figure 1 and Figure 3**). These cells can be used for the screening of antibodies targeting the TL1A pathway (**Figure 2**). Of note, HEK-Blue™ TL1A cells also respond to two other human AP-1/ NF-κB-signaling cytokines, TNF-α and IL-1 β. However, they do not respond to other cytokines of the TNF superfamily: APRIL, BAFF, RANKL, and CD40L (**Figure 3**).

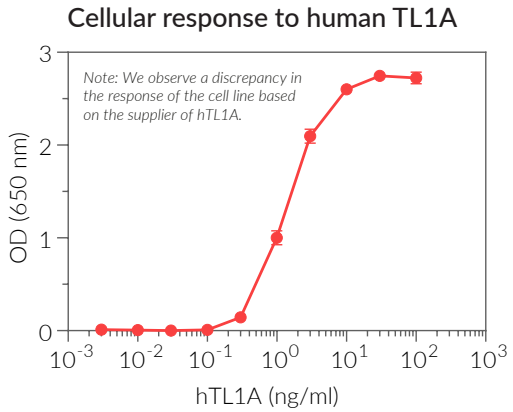

Figure 1. Dose-response of HEK-Blue™ TL1A cells to recombinant human TL1A. Cells were stimulated with increasing concentrations of recombinant human TL1A. After overnight incubation, the NF-κB/AP1-induced SEAP activity was determined using QUANTI-Blue™, a SEAP detection reagent. Data are shown as optical density (OD) at 650 nm (mean ± SEM).

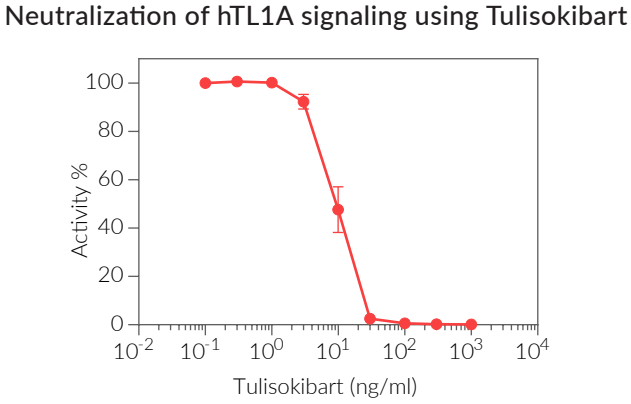

Figure 2. Dose-dependent inhibition of HEK-Blue™ TL1A cell response using Tulisokibart biosimilar. Increasing concentrations of Anti-hTL1A Tulisokibart biosimilar (0.1 ng/ml - 1 µg/ml) were incubated with recombinant human TL1A (3 ng/ml) for 1 h before the addition of HEK-Blue™ TL1A cells. After overnight incubation, SEAP activity in the cell culture supernatant was assessed using QUANTI-Blue™ Solution. Data are shown in percentage of activity (mean ± SEM).

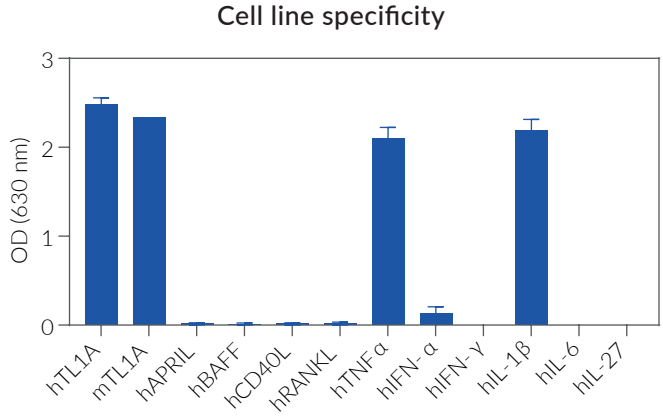

Figure 3. Response of HEK-Blue™ TL1A cells to a panel of cytokines. Cells were stimulated with various human and murine recombinant cytokines: 10 ng/ml of hTL1A, mTL1A, hAPRIL, hBAFF, hCD40L, hRANKL, hTNF-α, hIFN-γ, hIL-1β, hIL-6, hIL-27 and 1000 U/ml hIFN-α. After overnight incubation, SEAP activity was assessed using QUANTI-Blue™ The OD at 630 nm is shown as mean ± SEM.

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