

Validation data for recombinant human TGF- β 1

<https://www.invivogen.com/human-tgfb1>

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Version 24L17-AK

Transforming growth factor-beta (TGF- β 1) is a secreted cytokine that regulates numerous cellular functions, such as cell proliferation, apoptosis, differentiation and migration. Its size and purity was assessed using SDS-PAGE (Figure 1). The biological activity of TGF- β 1 is confirmed using HEK-Blue™ TGF- β 1 cells featuring a Smad-inducible SEAP reporter (Figure 2). Recombinant human TGF- β 1 can be used together with HEK-Blue™ TGF- β cells for the screening of inhibitory molecules, such as Fresolimumab, a monoclonal antibody targeting all isoforms of TGF- β (Figure 3).

Human TGF- β 1 SDS-PAGE analysis

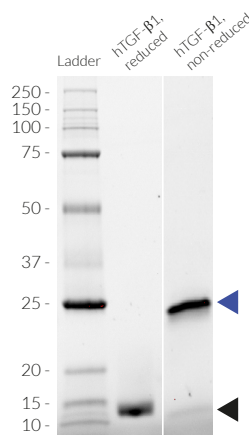


Figure 1. SDS-PAGE analysis of the recombinant human (h)TGF β 1. 1.5 μ g of hTGF- β 1, reduced or non-reduced, was loaded on a 12% Mini-PROTEAN® TGX Stain-Free™ Precast Gel (Bio-Rad). Detection was performed as per the manufacturer's instructions. The bands are detected at ~15 kDa (reduced condition) and ~25 kDa (non-reduced condition).

Cellular response to human TGF- β 1

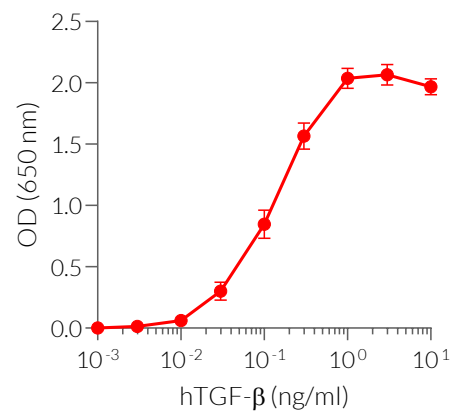


Figure 2. Dose-response of HEK-Blue™ TGF- β cells to recombinant human TGF- β 1. Cells were stimulated with increasing concentrations of recombinant human TGF- β 1. After overnight incubation, the Smad-induced SEAP activity was determined using QUANTI-Blue™, a SEAP detection reagent. Data are shown as optical density (OD) at 650 nm (mean \pm SEM).

Neutralization of TGF- β 1 signaling using Fresolimumab

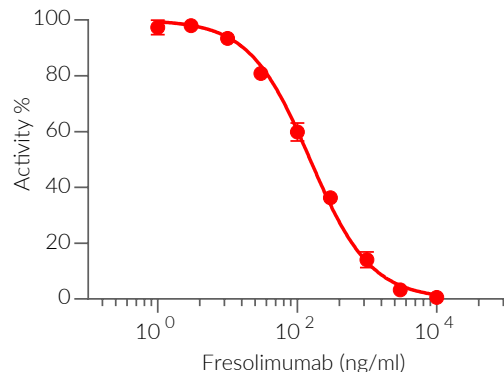


Figure 3. Dose-dependent inhibition of HEK-Blue™ TGF- β cells response using Fresolimumab biosimilar. Increasing concentrations of Anti-hTGF- β Fresolimumab biosimilar (0.1 ng/ml - 10 μ g/ml) were incubated with recombinant human TGF- β 1 (3 pg/ml) for 1 h before the addition of HEK-Blue™ TGF- β cells. After overnight incubation, SEAP activity in the cell culture supernatant was assessed using QUANTI-Blue™ Solution. Data are shown in percentage of activity (mean \pm SEM).

TECHNICAL SUPPORT

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