Validation data for recombinant human TGF-β1

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

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Version 23J27-AK

Transforming growth factor-beta (TGF-β1) 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-β1 has been confirmed using InvivoGen's HEK-Blue™ TGF-β1 cells **(Figure 2)**. Binding of TGF-β1 to its receptor on the surface of HEK-Blue™ TGF-β1 cells triggers a signaling cascade leading to the activation NF-κB and the subsequent production of SEAP. Levels of SEAP can be easily measured using QUANTI-Blue™, a detection reagent.

Detection by SDS-PAGE

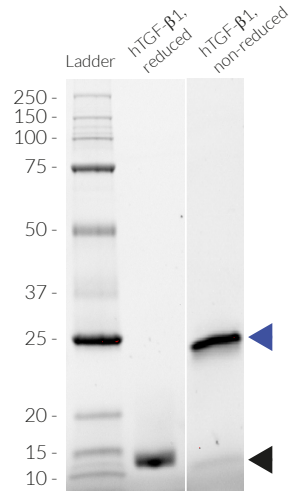

Figure 1. SDS PAGE of the recombinant human (h)TGFβ1 protein. 1.5 µg of hTGF-β1, reduced or non-reduced, was loaded on a 12% Mini-PROTEAN® TGX Stain-Free™ Precast Gel (Bio-Rad). Detection was performed as per the manufacturer's instructions. The bands were detected at ~15 kDa (reduced condition) and ~25 kDa (non-reduced condition).

Dose-response in HEK cells to human TGF-β1

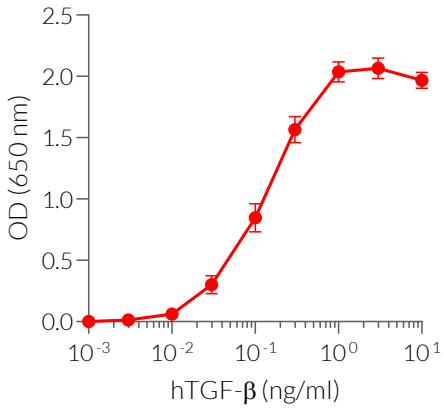

Figure 2. Dose-response in HEK-Blue™ TGF-β1 cells to recombinant TGF-β1 cytokine. Cells were stimulated with increasing concentrations of recombinant human TGF-β1. After overnight incubation, the NF-κB-induced SEAP activity was determined using QUANTI-Blue™, a SEAP detection reagent. Data are shown as optical density (OD) at 650 nm (mean ± SEM).

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