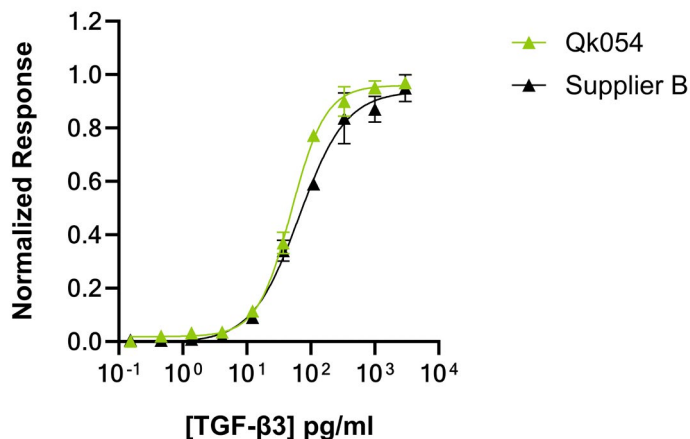


Qkine transforming growth factor beta-3 (TGF- β 3) is as biologically active as a comparable alternative supplier protein

Technote

TGF- β 3 (Qk054)



Quantitative luciferase reporter assay shows equivalent bioactivity of Qkine TGF- β 3 (Qk054, green) and alternative supplier TGF- β 3 (Supplier B black).

HEK293T reporter cells were treated in triplicate with a serial dilution of TGF- β 3 for 6 hours. Firefly luciferase activity is measured and normalized to control Renilla luciferase activity.

Transforming growth factor-beta 3 (TGF- β 3) is a member of the TGF- β family. TGF- β controls the differentiation of many cell lineages and regulate cell growth and differentiation. In cell culture, TGF- β 3 maintains the pluripotency of embryonic stem cells (ESC) and induced pluripotent stem cells (iPSC). It can also induce the differentiation of cartilage and muscle cells.

Qkine TGF- β 3 (Qk054) is animal origin-free, carrier protein-free and tag-free to ensure high and consistent bioactivity.

Qkine TGF- β 3 (Qk054) Bioactivity

- ▶ Qkine TGF- β 3 bioactivity was assessed using a quantitative luciferase assay and had an EC50 of 49.7 pg/ml (2 pM).
- ▶ This was comparable to Supplier B bacterially expressed TGF- β 3 bioactivity of 65.6 pg/ml (2.6 pM).

The bioactivity comparison demonstrates that Qkine TGF- β 3 (Qk054) has equivalent bioactivity to TGF- β 3 from an alternative major supplier. Qkine TGF- β 3 (Qk054) has the advantage of being highly pure and animal origin-free, giving lot-lot consistency in bioactivity for long-term reproducible culture of iPSC or ESC.