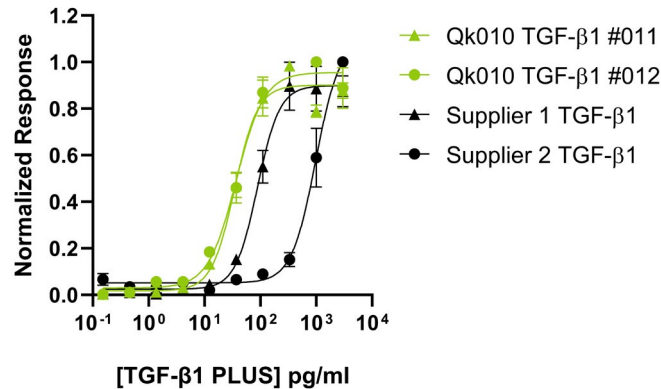


Qkine animal origin-free TGF- β 1 PLUS is more bioactive than mammalian expressed alternatives

Technote

TGF- β 1 PLUS (Qk010)



Transforming growth factor beta-1 (TGF- β 1) is a common component of human pluripotency maintenance media. However, as TGF- β 1 is a highly complex protein, it is difficult to manufacture in microbial expression systems.

Qk010 TGF- β 1 PLUS is the world's first animal origin-free TGF- β 1, manufactured for highly reproducible results.

TGF- β 1 Bioactivity

▶ TGF- β 1 PLUS (Qk010) was bioactive in a quantitative luciferase assay with an EC50 of 1.4 pM (lots #011 and #012).

▶ This was more bioactive compared to mammalian expressed TGF- β 1 from alternative suppliers, which had EC50s of 3.5 pM (supplier 1) and 38 pM (supplier 2).

TGF- β 1 PLUS shows exceptional lot-to-lot consistency, providing a reliable source of highly active TGF- β 1.

Qkine animal origin-free TGF- β 1 PLUS was shown to be more bioactive than mammalian expressed alternatives. Qkine recombinant proteins are more cost effective, highly pure and animal origin-free, giving exceptional lot-to-lot consistency in bioactivity for long-term reproducible culture of stem cells.

Qkine TGF- β 1 PLUS was found to be more bioactive than TGF- β 1 from alternative suppliers.

Bioactivity was determined using a TGF- β 1-responsive (CAGA) firefly luciferase reporter in transiently transfected HEK293T cells. Cells were treated with a serial dilution of TGF- β 1 PLUS (Qk010, green) or TGF- β 1 from two alternative supplier (black) for 6 hours in triplicate. Firefly luciferase activity was measured and normalized to the control, Renilla luciferase.