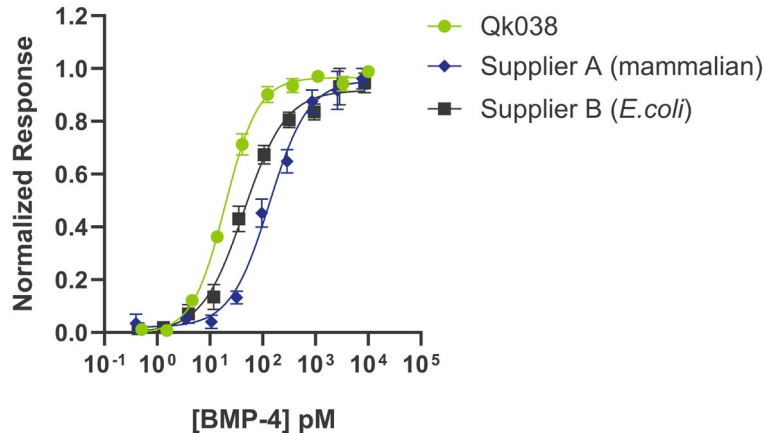


Qkine BMP-4 has higher bioactivity than bacterial and mammalian-expressed BMP-4 from alternative suppliers



Qkine BMP-4 has higher bioactivity than alternative suppliers.

Bioactivity was determined using a BMP-4-responsive firefly luciferase reporter assay in stably transfected HEK293T cells. Cells were treated with a serial dilution of BMP-4 for 6 hours in triplicate. Qkine BMP-4 (Qk038, green) has a higher bioactivity than alternative mammalian expressed protein (Supplier A, blue) and bacterially expressed (Supplier B, grey).

Human bone morphogenetic protein 4 (BMP-4) is a key regulator of embryogenesis and supports the differentiation of induced pluripotent stem cells (iPSC) and embryonic stem cells (ESCs). BMP-4 plays a role in bone and cartilage formation, tissue repair, and organ and neuronal development.

BMP-4 is part of the TGF- β superfamily and has a complex biochemical structure, expertise is required to manufacture bioactive BMP-4.

Qkine BMP-4 bioactivity

- ▶ BMP-4 (Qk038) had comparably higher bioactivity (EC50 19.4 pM) than mammalian-expressed BMP-4 (EC50 133.5 pM).
- ▶ Qkine BMP-4 bioactivity was also higher than another bacterially expressed BMP-4 (EC50 43.9 pM)

Qkine BMP-4 (Qk038) had higher bioactivity than BMP-4 from alternative suppliers, allowing lower concentrations to be used in media for cost-effective cell culture. Qkine BMP-4 (Qk038) has the advantage of being highly pure and animal origin-free, with increased bioactivity for cost-effective reproducible stem cell culture and differentiation.