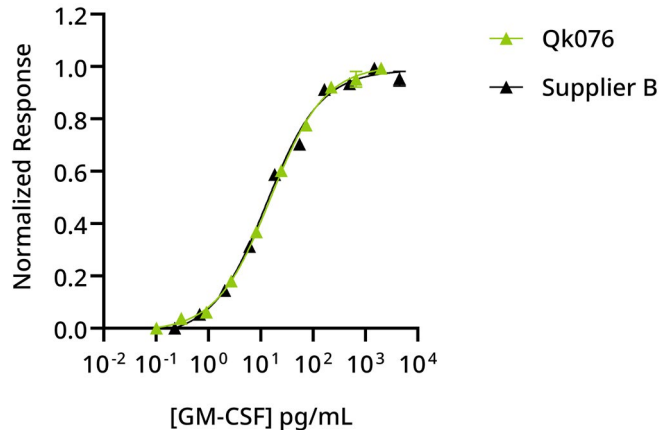


# Qkine Granulocyte Macrophage Colony-Stimulating Factor (GM-CSF) is as biologically active as the comparable alternative supplier protein

Technote

GM-CSF (Qk076)



Granulocyte-macrophage colony-stimulating factor (GM-CSF) is a hematopoietic growth factor involved in differentiating and activating monocytes and granulocytes. It is also involved in developing erythroid cells, megakaryocytes, and keratinocytes. GM-CSF is commonly used in cell culture to stimulate the differentiation and maturation of human induced pluripotent stem cells or peripheral blood cells to myeloid lineages.

Qkine GM-CSF (Qk076) is animal origin-free, carrier protein-free and tag-free to ensure high and consistent bioactivity.

### Qkine GM-CSF (Qk076) Bioactivity

- ▶ Qkine GM-CSF stimulated proliferation of TF-1 human myeloid leukemia cells with an EC50 of 15.4 ng/mL (1 nM).
- ▶ This was comparable to Supplier A bacterially expressed GM-CSF bioactivity of 12.9 ng/mL (0.9 nM).

The bioactivity comparison demonstrates that Qkine GM-CSF (Qk076) has equivalent bioactivity to GM-CSF from an alternative major supplier. Qkine GM-CSF (Qk076) has the advantage of being highly pure and animal origin-free, giving lot-lot consistency in bioactivity for long-term reproducible culture of myeloid cells and other relevant hematopoietic cells.

**Stimulation of proliferation of TF-1 cells with Qkine GM-CSF (Qk076, green) and alternative supplier GM-CSF (Supplier A black).** Cells were treated in triplicate with a serial dilution of GM-CSF for 48 hours and proliferation measured using the CellTiter-Glo (Promega) luminescence assay..