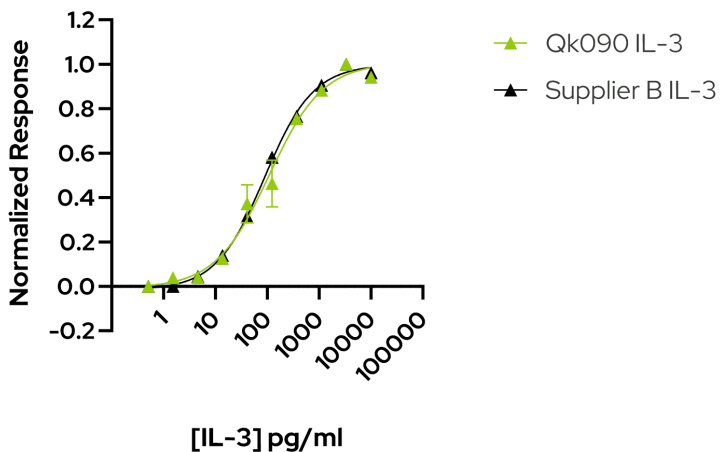


Highly bioactive animal-free IL-3



Quantitative luciferase reporter assay shows that both IL-3 (Qk090, green) and alternative supplier IL-3 (Supplier B black) show high bioactivity with an EC₅₀ of 108.7 pg/ml (7.2 pM) and 89.1 pg/ml (5.9 pM) respectively. Data for Qk090 lot #204532.

TNQK093-131123-v1.1

Introduction:

Interleukin 3 (IL-3) is a hematopoietic growth factor that promotes the proliferation, growth, and survival of myeloid cells. IL-3 is commonly used in cell culture to stimulate the differentiation and maturation of human-induced pluripotent stem cells towards myeloid progenitors such as mast cells, basophils, neutrophils, eosinophils, monocytes, and megakaryocytes.

Animal-free growth factors can ensure cell cultures are reproducible and physiologically relevant as they have higher lot-to-lot consistency and eliminate contamination from animal-derived ingredients. Qkine manufactures an animal-free, carrier-free, and tag-free IL-3 to ensure high and consistent bioactivity. This technote demonstrates a comparable level of bioactivity to an alternative major supplier of IL-3.

Method:

The bioactivity of Qk090 IL-3 and bacterial-expressed IL-3 from an alternative supplier is determined using the proliferation of TF-1 human myeloid leukemia cells. Cells are treated in triplicate with a serial dilution of IL-3 for 72 hours. Cell viability is measured using the CellTiter-Glo (Promega) luminescence assay and normalised.

Results:

The bioactivity comparison demonstrates that Qk090 IL-3 has equivalent bioactivity to IL-3 from an alternative major supplier. Qkine IL-3 provides a reliable source of highly pure animal-free IL-3 for the reproducible culture of myeloid cells and other relevant hematopoietic cells.

Qkine IL-3 and all Qkine recombinant proteins come with a Bioactivity Guarantee, guaranteeing our proteins to be reproducibly bioactive in your cultures. To learn more or to purchase Qkine animal-free recombinant proteins, visit qkine.com