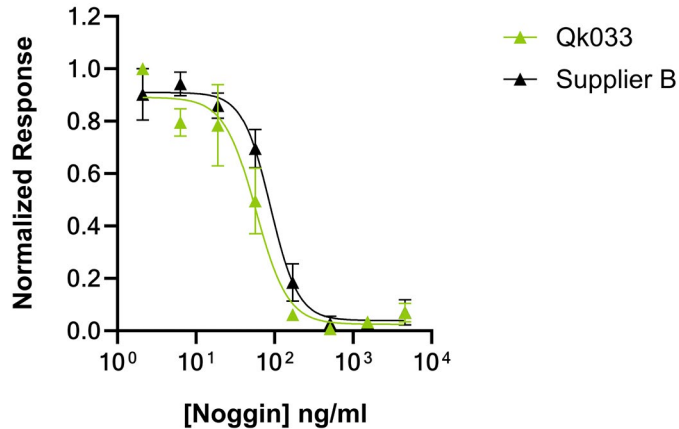


Qkine mouse/rat noggin is as biologically active as a comparable alternative supplier protein



Qkine noggin (Qk033, green) has a comparable bioactivity with alternative noggin (Supplier B, black).

The bioactivity of Qk033 noggin and Supplier B noggin was determined by inhibiting BMP-2 (Qk007) activity in a BMP-2 responsive HEK293T firefly luciferase reporter assay. Cells were treated (in triplicate) with a serial dilution of Noggin and a standard concentration of BMP-2 for 6 hours.

Noggin is a bone morphogenetic protein (BMP) antagonist which regulates cell differentiation and growth during embryonic development. Noggin is used in the culture of embryonic and pluripotent stem cells and to derive neural and microglial lineages. It can also be used to generate intestinal, pancreatic, lung, and tumor-derived organoids.

Species-specific recombinant proteins such as mouse/rat Noggin (Qk033) are essential for the culture of mouse and rat embryonic stem cells, ensuring reproducible and physiologically relevant cell cultures. Qkine mouse/rat noggin (Qk033) is animal origin-free, carrier-free, tag-free, and non-glycosylated to ensure high and consistent bioactivity.

Qkine mouse/rat noggin (Qk033) bioactivity

- ▶ Qkine mouse/rat noggin (Qk033) inhibited BMP-2 (Qk007) activity in a firefly luciferase reporter assay with an EC50 of 58 ng/ml (1.3 nM).
- ▶ The inhibition was more potent than with compatible noggin from Supplier B which had an EC50 of 88.5 ng/ml (1.9 nM).

Qkine mouse/rat noggin (Qk033) has comparable bioactivity to noggin from an alternative major supplier. Qkine noggin (Qk033) has the advantage of being species specific, highly pure and animal origin-free, giving lot-lot consistency in bioactivity for long-term reproducible culture of mouse and rat embryonic stem cells.