

Helioxanthin Analogue (TH) Promoting Osteogenic Differentiation



Advantages

- Stimulates osteoblast differentiation of osteoblast precursors
- Enhances bone regeneration in rodent bone defect models
- Induces the osteogenic effects on stem cells

The helioxanthin analogue (TH) is an osteogenic small compound that was first reported by Ohba *et al.*¹⁾ In their reports, TH not only stimulates osteoblast differentiation of osteoblast precursors, but also enhances bone regeneration in rodent bone defect models.^{2,3)} The osteogenic effects are also observed in mouse and human pluripotent stem cells^{4,5)} as well as human dental pulp stem cells.⁶⁾

Fig. 1 mRNA expression of osteoblast marker genes in MC3T3-E1 cells treated with TH for 14 days (RT-qPCR analysis).

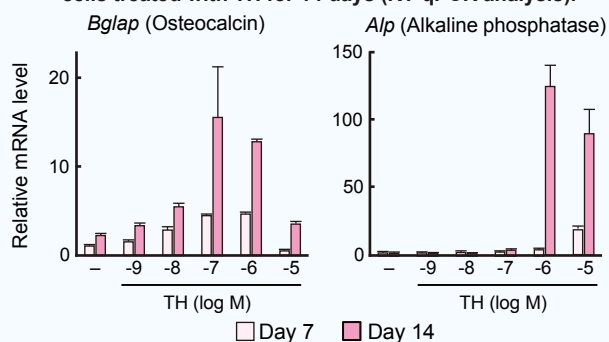
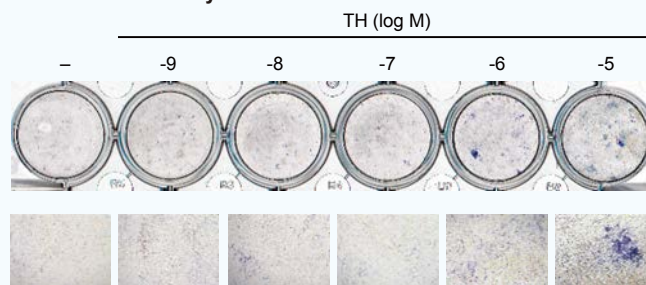


Fig. 2 ALP staining of MC3T3-E1 cells treated with TH for 14 days.



References

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TH (= 4-(4-Methoxyphenyl)thieno[2,3-b:5,4-c']dipyridine-2-carboxamide)

10mg / 50mg [M3085]

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