# Scopolin treatment prevents osteoporotic bone loss in ovariectomized mice

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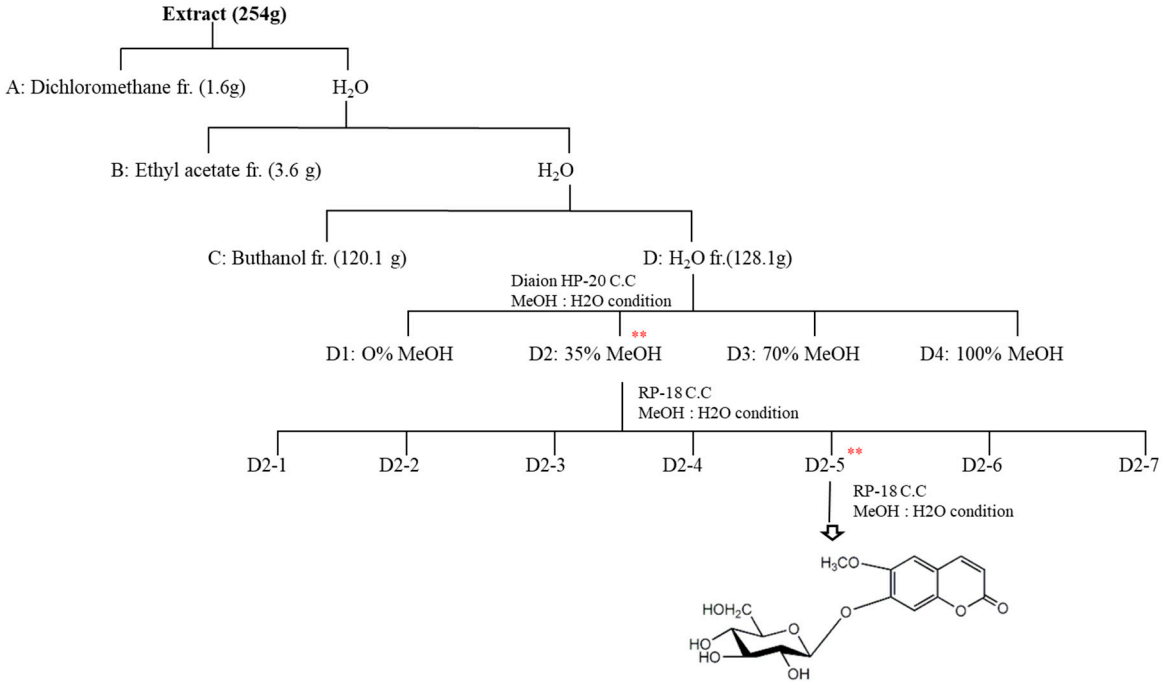


**Figure S1.** Fractionation and isolation of the bioactive component isolated from LRC

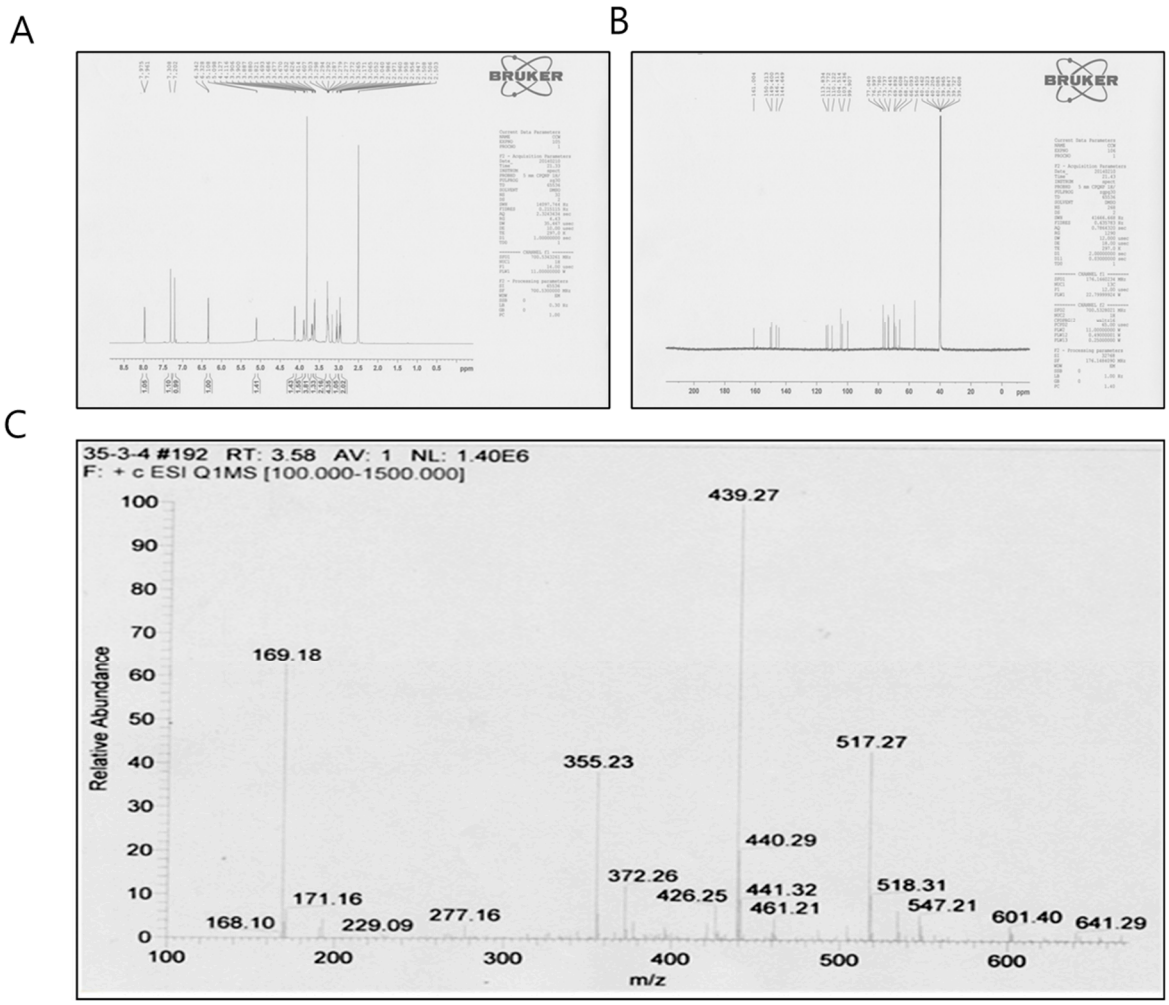


**Figure S2.** $^{1}$H-NMR (A), $^{13}$C-NMR (B), and mass (C) spectrum of scopolin.

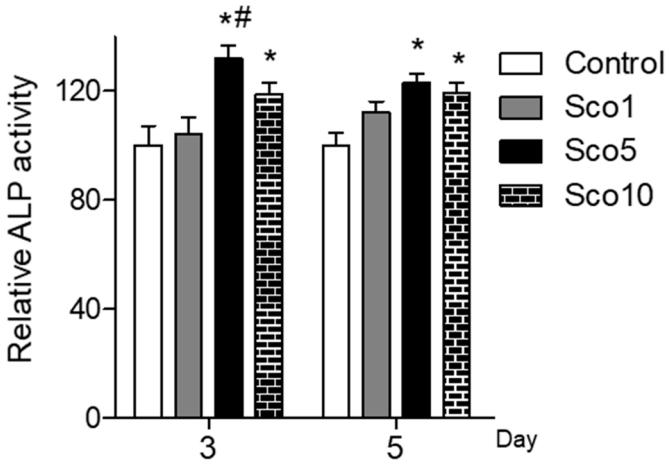


**Figure S3.** Scopolin increased alkaline phosphatase (ALP) activity after 3 and 5 days of incubation. The cells were cultured with three different concentrations of scopolin (1, 5 and 10 μM), and alkaline phosphatase (ALP) activity was measured. *$p < 0.05$ vs. control, $^{\#}p < 0.05$ vs. Sco1.

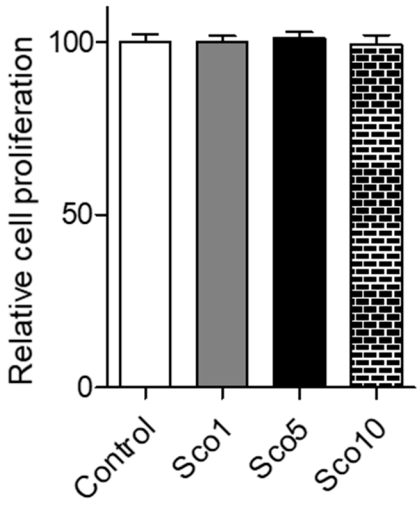


**Figure S4.** Scopolin did not affect proliferation of osteoblastic cells. The cells were cultured with three different concentrations of scopolin (1, 5 and 10 μM) for 5 days, and the cell viability was measured.

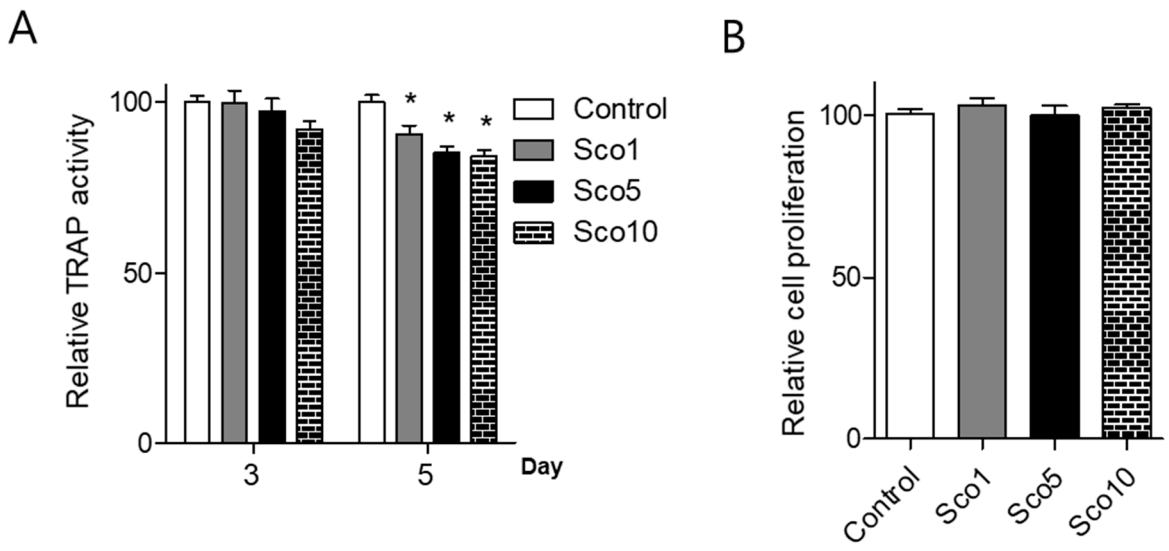


**Figure S5.** Scopolin reduced osteoclastic differentiation (A) and did not affect cell proliferation (B) in monocytes isolated from bone marrow. The monocyte cells were cultured for 3 and 5 days in the presence of 30 ng/ml of M-CSF and 50 ng/ml of RANKL (induction) or in the presence of M-CSF and RANKL with 1, 5, or 10 μM of scopolin. *$p < 0.05$ vs. control.

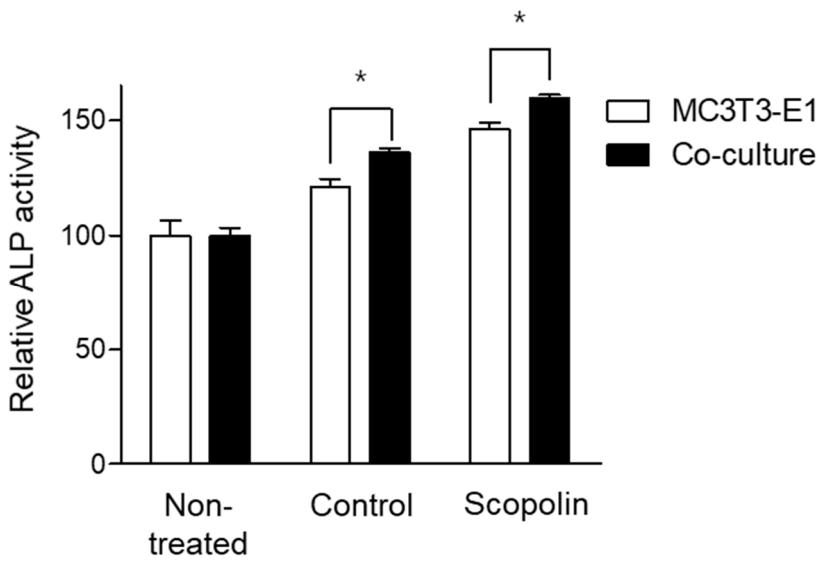


**Figure S6.** Co-culture of isolated monocytes with MC3T3-E1 osteoblastic cell line cells increased osteoblast differentiation compared to a single-culture of MC3T3-E1. The isolated monocyte and MC3T3-E1 cells were co-cultured for 48 hours and ALP activity was measured to determine osteoblast differentiation. *: $p < 0.05$. vs. MC3T3-E1.