A Novel Tumor Induced Osteoclastogenesis Pathway Insensitive to Denosumab but Interfered by Cannabidiol

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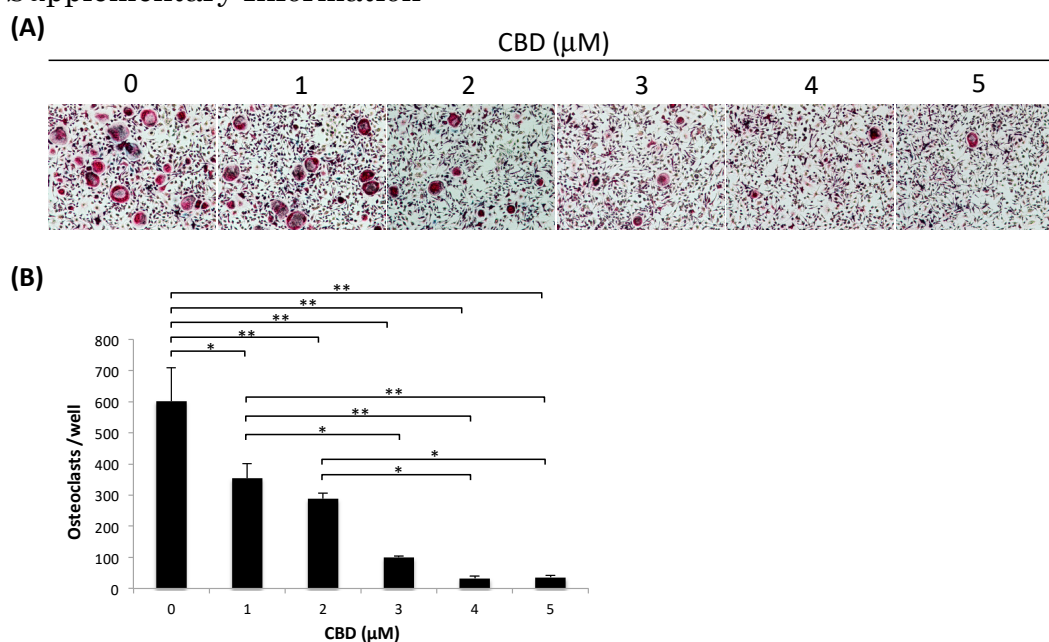
Supplementary Information

Figure S1. Optimization of CBD concentrations to inhibit osteoclastogenesis induced by the coculture. (A) Representative views of TRAP staining 4 days after the application of each concentration of CBD to a coculture of OPCs and 3A cells. (B) Quantitative data on the number of induced osteoclasts. Values are the mean ± SEM of 3 wells. Values are the mean ± SEM of 3 wells. **$P < 0.001$, *$P < 0.05$ (one-way ANOVA with the Tukey-Kramer method).

(A)

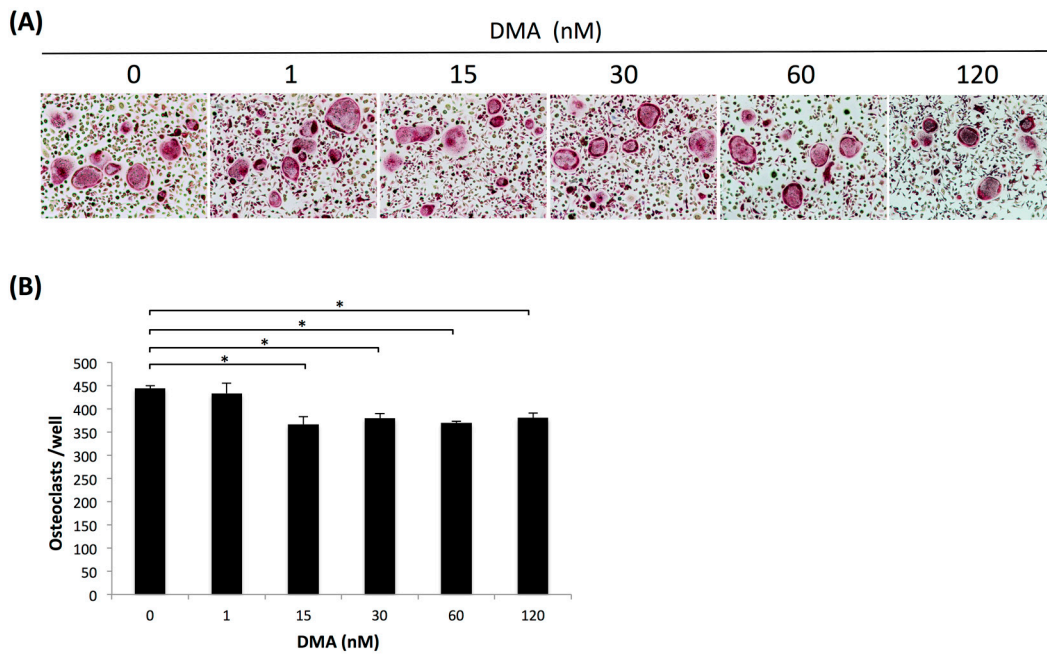DMA (nM)

| 0 | 1 | 15 | 30 | 60 | 120 |

(B)

Figure S2. Optimization of DMA concentrations to inhibit osteoclastogenesis induced by the coculture. (A) Representative views of TRAP staining 4 days after the application of each concentration of DMA to a coculture of OPCs and 3A cells. (B) Quantitative data on the number of induced osteoclasts. Values are the mean ± SEM of 3 wells. *$P < 0.05$ significantly different from that without the application of DMA (one-way ANOVA with the Tukey-Kramer method).

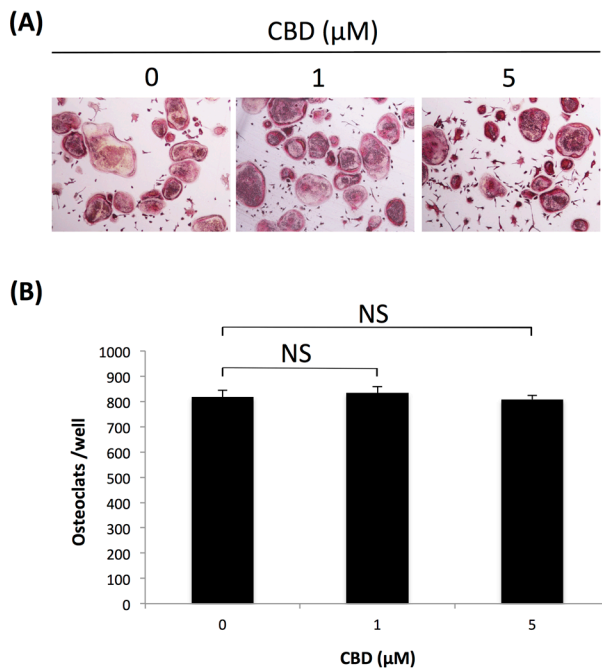**(A)**

CBD (μM)

| 0 | 1 | 5 |

(B)

Figure S3. Effects of CBD on osteoclastogenesis induced from OPCs by RANKL. (A) Representative views of TRAP staining 4 days after the application of each concentration of CBD to OPCs further treated with

100 ng/mL of RANKL. (B) Quantitative data on the number of induced osteoclasts. Values are the mean ± SEM of 3 wells. NS: not significant (one-way ANOVA with the Tukey-Kramer method)
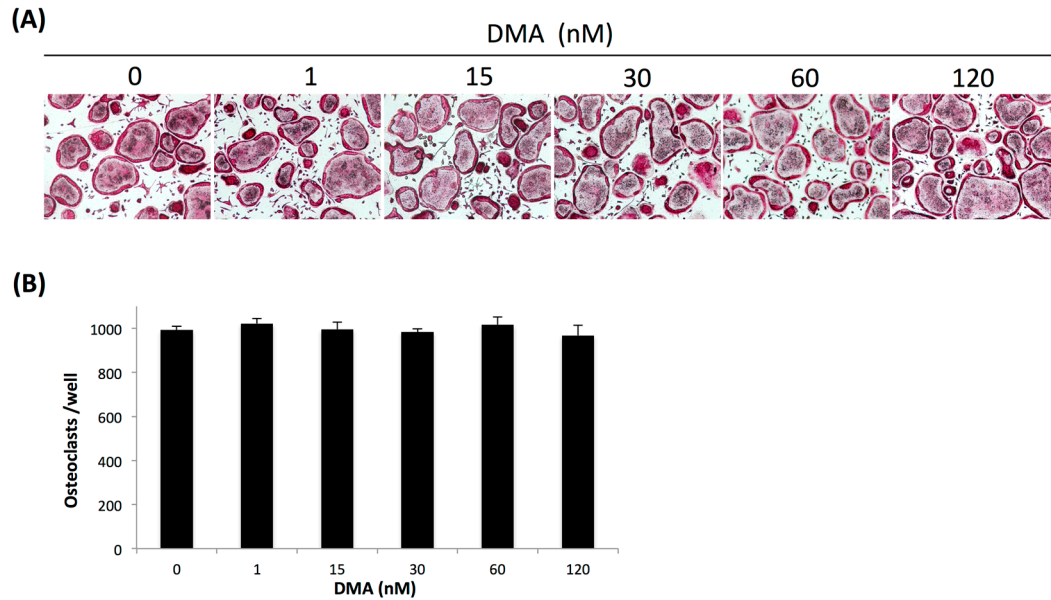
(A)

(B)

Figure S4. Effects of DMA on osteoclastogenesis induced from OPCs by RANKL. (A) Representative views of TRAP staining 4 days after the application of each concentration of DMA to OPCs further treated with 100 ng/mL of RANKL. (B) Quantitative data on the number of induced osteoclasts. Values are the mean ± SEM of 3 wells. No significant difference was observed in the number of osteoclasts (one-way ANOVA with the Tukey-Kramer method).