Effects of 4-Hexylresorcinol on Craniofacial Growth in Rats

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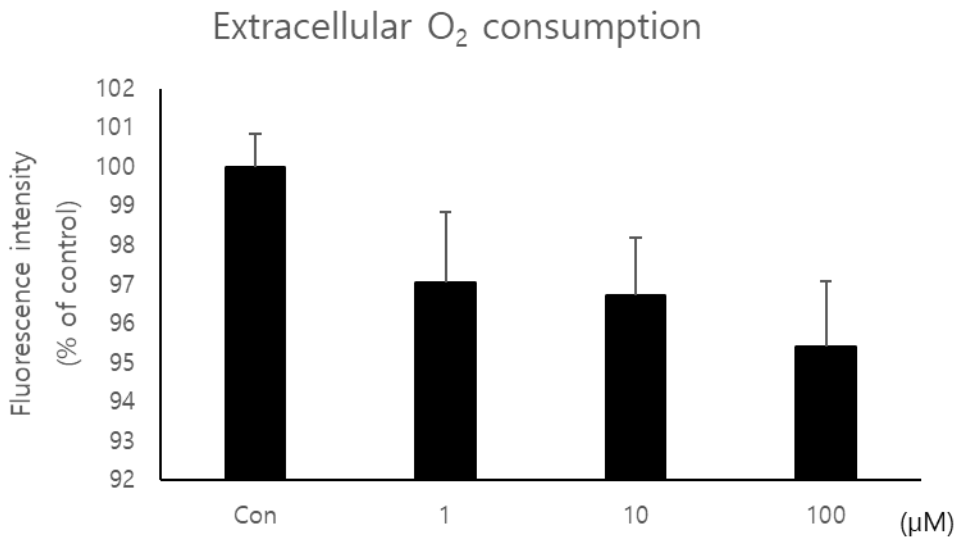
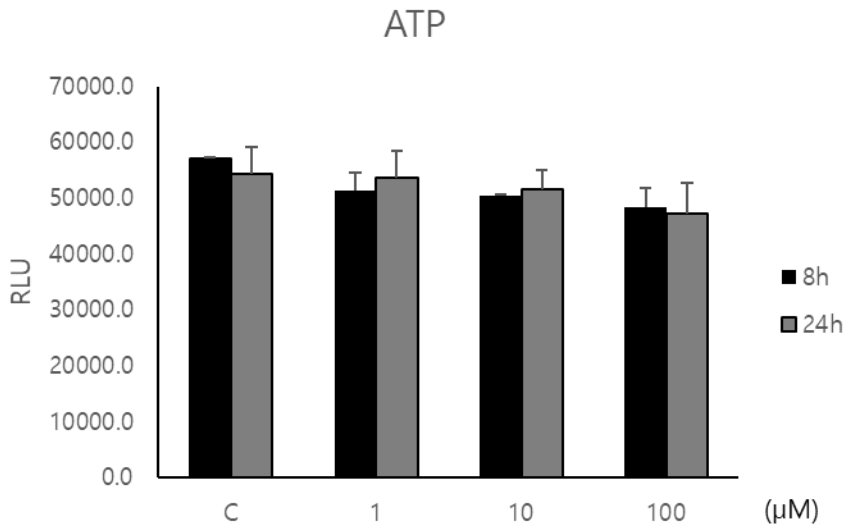
Supplementary Figure 1. Extracellular oxygen consumption assay.

The administration of 4-hexylresorcinol (4HR) decreased extracellular oxygen consumption in Saos-2 cells. The relative oxygen consumption level compared to untreated control was 97.1 ± 1.8, 96.7 ± 1.5, and 95.4 ± 1.7 % for 1, 10, and 100 μM, respectively. Accordingly, 100 μM 4HR administration decreased 4.6% of oxygen consumption in Saos-2 cells ($p < 0.05$).



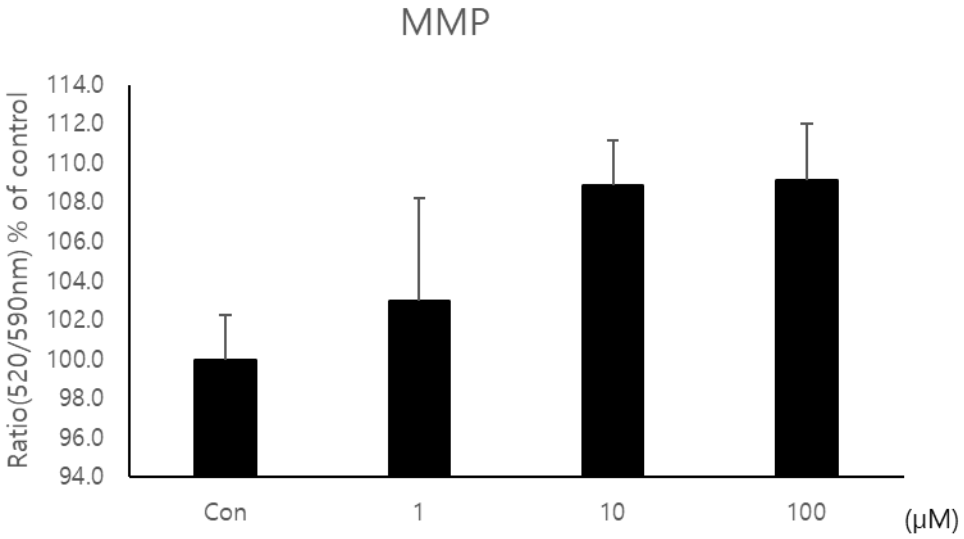
Supplementary Figure 2. ATP level assay.

The administration of 4-hexylresorcinol (4HR) decreased ATP level in Saos-2 cells. The ATP level was 54350.5 ± 4826.5, 53766.5 ± 4696.5, 51653.0 ± 3286.0 and 47338.5 ± 5362.5 RLU for untreated control, 1, 10, and 100 μM at 24 h after treatment, respectively.



Supplementary Figure 3. Mitochondrial membrane potential assay.

The administration of 4-hexylresorcinol (4HR) increased MMP in Saos-2 cells. The relative MMP level was 103.0 ± 5.22, 108.9 ± 2.31, and 109.1 ± 2.9 % for 1, 10, and 100 μM at 24 h after treatment, respectively. Accordingly, 10 and 100 μM 4HR administration increased MMP significantly in Saos-2 cells ($p < 0.05$).



Supplementary Figure 4. Cytochrome c assay for cytoplasmic and mitochondrial fraction.

As demonstrated by Western blot analysis using cytochrome c apoptosis ICC antibody kit (Abcam, CAT#: ab110417), the administration of 4HR decreased cytochrome c levels at 100 μM, but not other concentrations in the mitochondrial fraction. Interestingly, 1 and 10 μM 4HR administration slightly increased cytochrome c level of mitochondria without statistical significance ($p > 0.05$). The decreased cytochrome c at 100 μM of 4HR was not detected in the cytoplasmic fraction.