Electronic Supplementary Material (ESI) for Journal of Materials Chemistry B.

Supporting Information

Effect of Oxygen Supply Using Perfluorocarbon-based Nanoemulsion on Human Hair Growth

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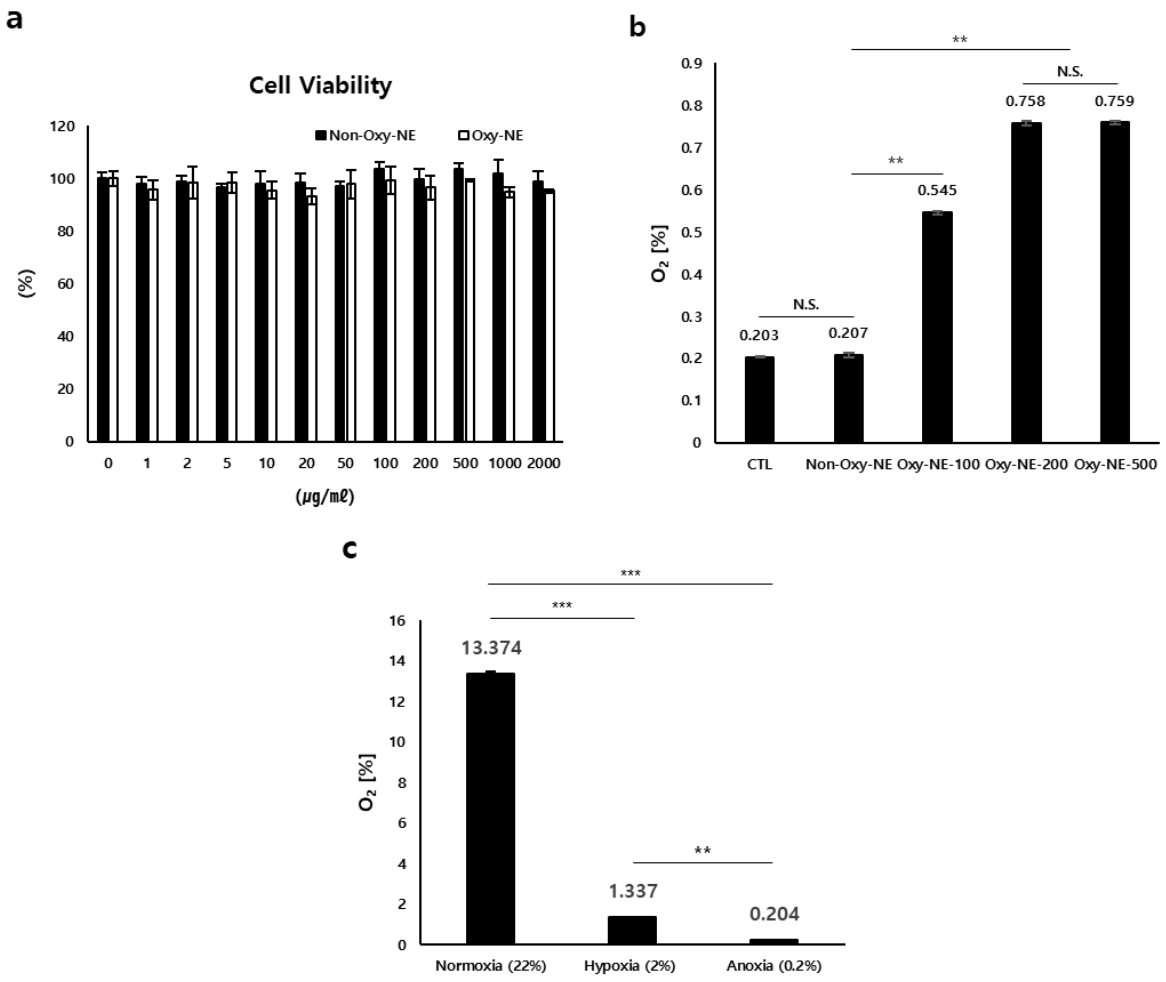

Figure S1. Physical properties of PFOB-NE and non-cytotoxic effect on hDPC. (a) PFOB-NE has no cytotoxicity for hDPC at treatment concentrations. (b) Each concentration of O_2 was determined 24 h after treatment using PFOB-NE with or without O_2. (c) Oxygen partial pressure of liquid media was measured after 24 h of equilibrium. All data were analyzed by student's t-test. $^{**}p < 0.01$, $^{***}p < 0.001$.

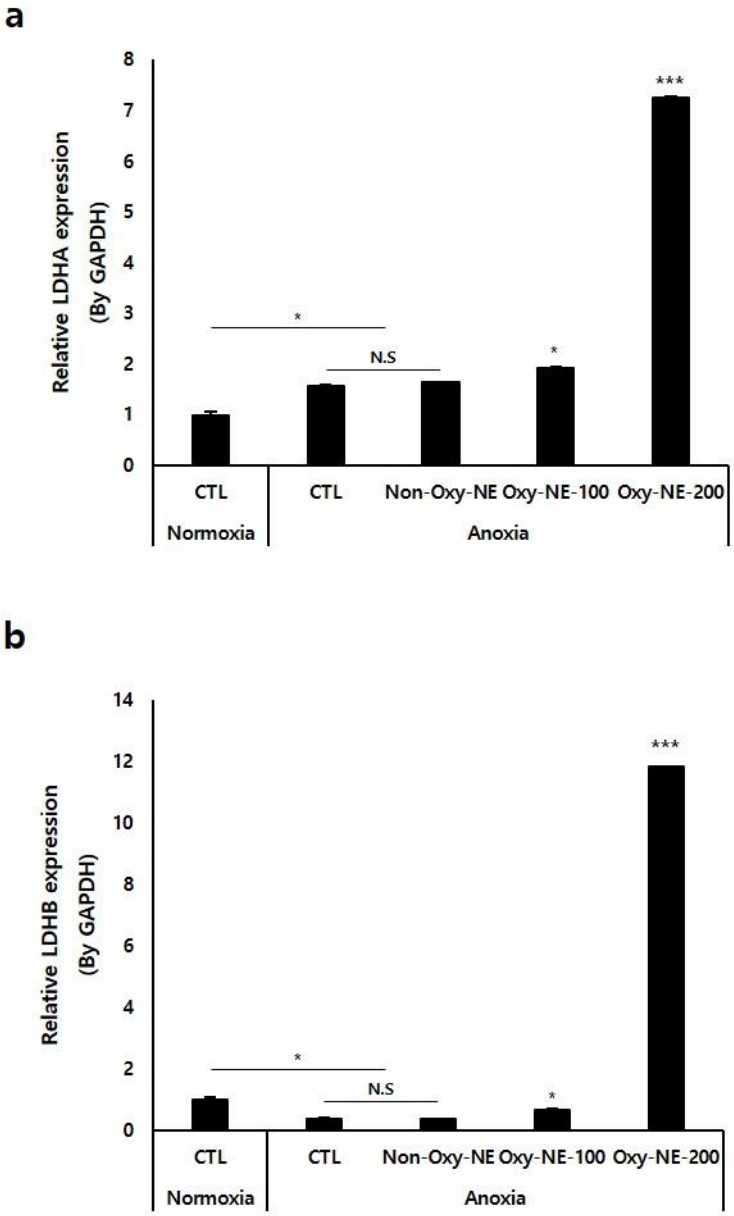

Figure S2. mRNA expression level of lactate dehydrogenase was regulated by treatment of O_2 contained PFOB-NE under anoxic condition. mRNA expressions of (a) lactate dehydrogenase type A (LDHA) and (b) LDHB was validated using RT-qPCR. Expression data are expressed as mean ± SD of 3 independent experiments. *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$ vs. CTL in normoxic condition, N.S = not significant.

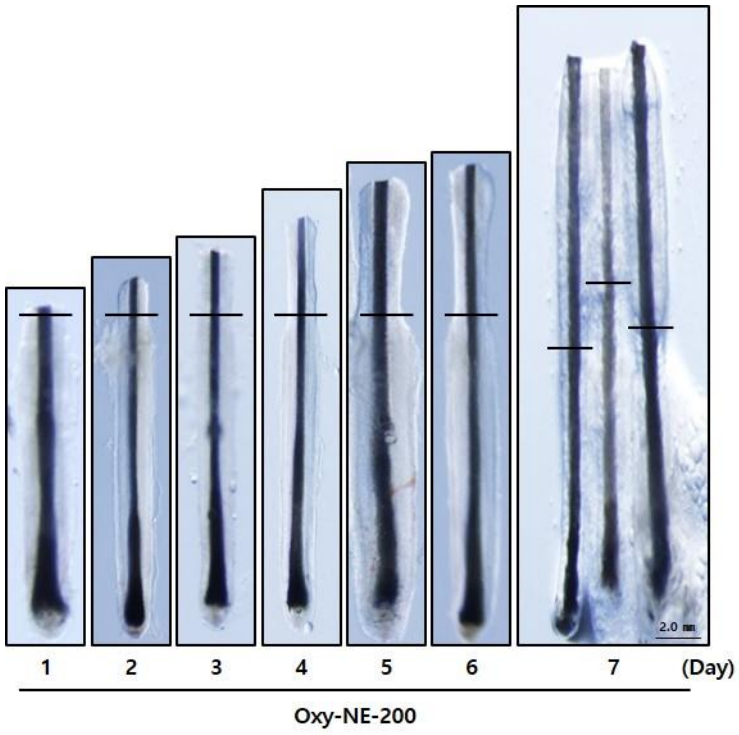

Figure S3. Human hair elongation was induced in Oxy-NE treatment under anoxic conditions. To confirm morphological change in hair shaft elongation, daily images were secured for 7 d. Original magnification: 40×; scale bar: 2.0 mm