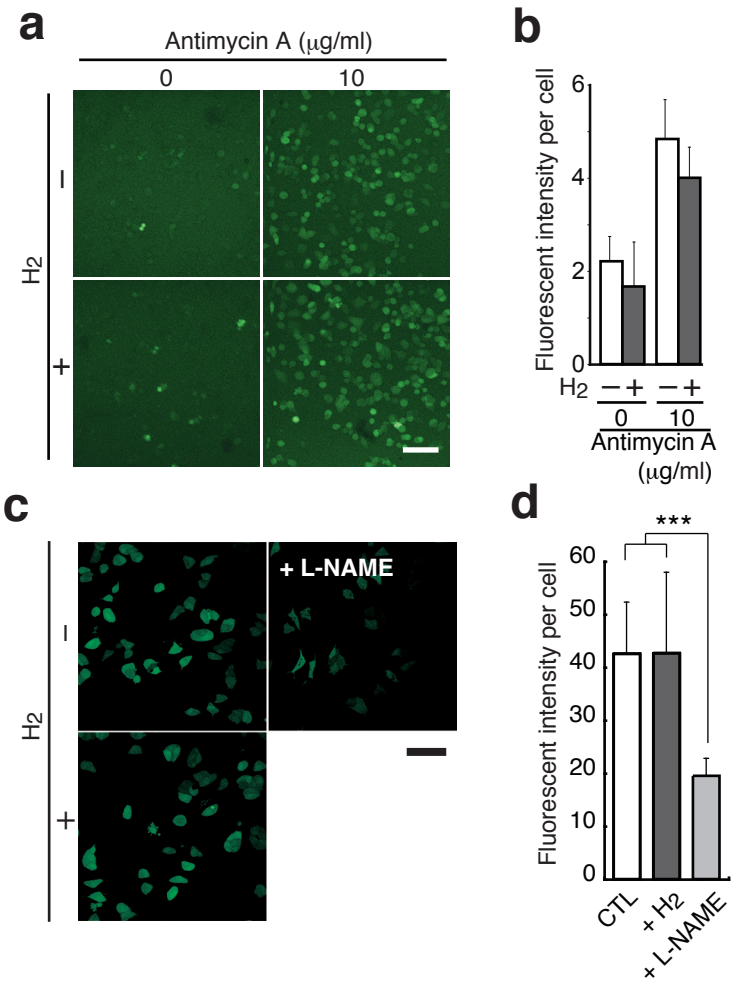

Supplementary Figure 1 Molecular hydrogen dissolved in culture medium does not reduce cellular hydrogen peroxide and nitric oxide.

(**a**) PC12 cells were held in medium with or without 0.6 mM H_2, and antimycin A (10 μg/ml) was added to the medium to induce O_2^-•, which was rapidly converted into H_2O_2. Representative laser-scanning confocal images of the fluorescence of H_2O_2 marker 2',7'-dichlorodihydroflurescein (H_2DCF) were taken 1 h after the addition of antimycin A. Scale bar: 100 μm. (**b**) DCF fluorescence in cells treated with antimycin A in the presence or absence of 0.6 mM H_2 was quantified from 100 cells from each independent experiment using NIH Image software (mean ± SD, n = 4). (**c, d**) Cellular NO• was detected with a cellular NO•-specific fluorescent probe, DAF-2 DA (diaminofluorescein-2 diacetate, purchased from Daiichi Pure Chemicals Co.) by laser-scanning confocal microscopy using excitation and emission filters of 488 and 510 nm, respectively. As a negative control, an inhibitor of NOS (L-NAME: N^G-Nitro-L-arginine methyl ester, purchased from Sigma) was added so as not to generate NO•. Scale bar: 50 μm. (**d**) DAF-2 DA fluorescence was quantified as described in (**b**) (mean ± SD, n = 5). ***$P < 0.001$.