Supplementary Figure 1. (A) 24 h after exposure to 40 mJ/cm$^2$ UVB, ROS content (magnification, 40×) in the UVB irradiation group was increased compared with that in the control group, and NAC (10 mM) caused a reduction in UVB-induced ROS generation. (B) At 24 h after exposure to 40 mJ/cm$^2$ UVB, NAC had no significant effect on UVB-induced upregulation of RP11-670E13.6. (C) ROS contents were not influenced in RP11-670E13.6-depleted HDFs compared with that in the control group (magnification, 40×). (D, E) Activities of antioxidant enzymes SOD and CAT. CAT, catalase; NS, not significant; SOD, superoxide dismutase.
**Supplementary Figure 2.** (A) HDFs were transfected with *RP11-670E13.6* or control siRNA. Forty-eight hours after transfection, whole-transcriptome analysis was performed with RNA-seq. Heatmap showing the differentially expressed genes after *RP11-670E13.6* knockdown ($P < 0.05$, FC log2 > 1.5). (B) Top significant molecular functions for genes whose transcript levels were increased in *RP11-670E13.6*-depleted HDFs.
Supplementary Figure 3. (A) Luciferase assays showed a significant decrease in luciferase activities after cotransfection of the RP11-670E13.6 expression vector and miRNA mimics. (B) Putative binding site of miR-663a in the 3'UTR of CCND1 and the sites of target mutagenesis are indicated. Luciferase activity in HDFs, demonstrating the effects of miR-663a on the expression of CCND1. P values were determined by Student’s t-tests. *P < 0.05; **P < 0.01; and ***P < 0.001.