

Figure S1. Highly deregulated circRNAs in HeLa cells with or without hydrogen intervention. (A) circRNA heatmap was generated based on the 10 maximum and 10 minimum FC values (n=3 per group). (B) Volcano plot for deregulated circRNAs [ $\log_2(\text{FC}) > 1$  or  $< -1$ , adjusted P-value  $< 0.05$ ] between H2 and control groups. The area above the gray horizontal solid line indicates  $P < 0.05$ . (C) Upregulated circRNAs (orange) and downregulated circRNAs (azure blue) are listed. circRNAs, circular RNAs; H<sub>2</sub>, hydrogen; FC, fold-change.

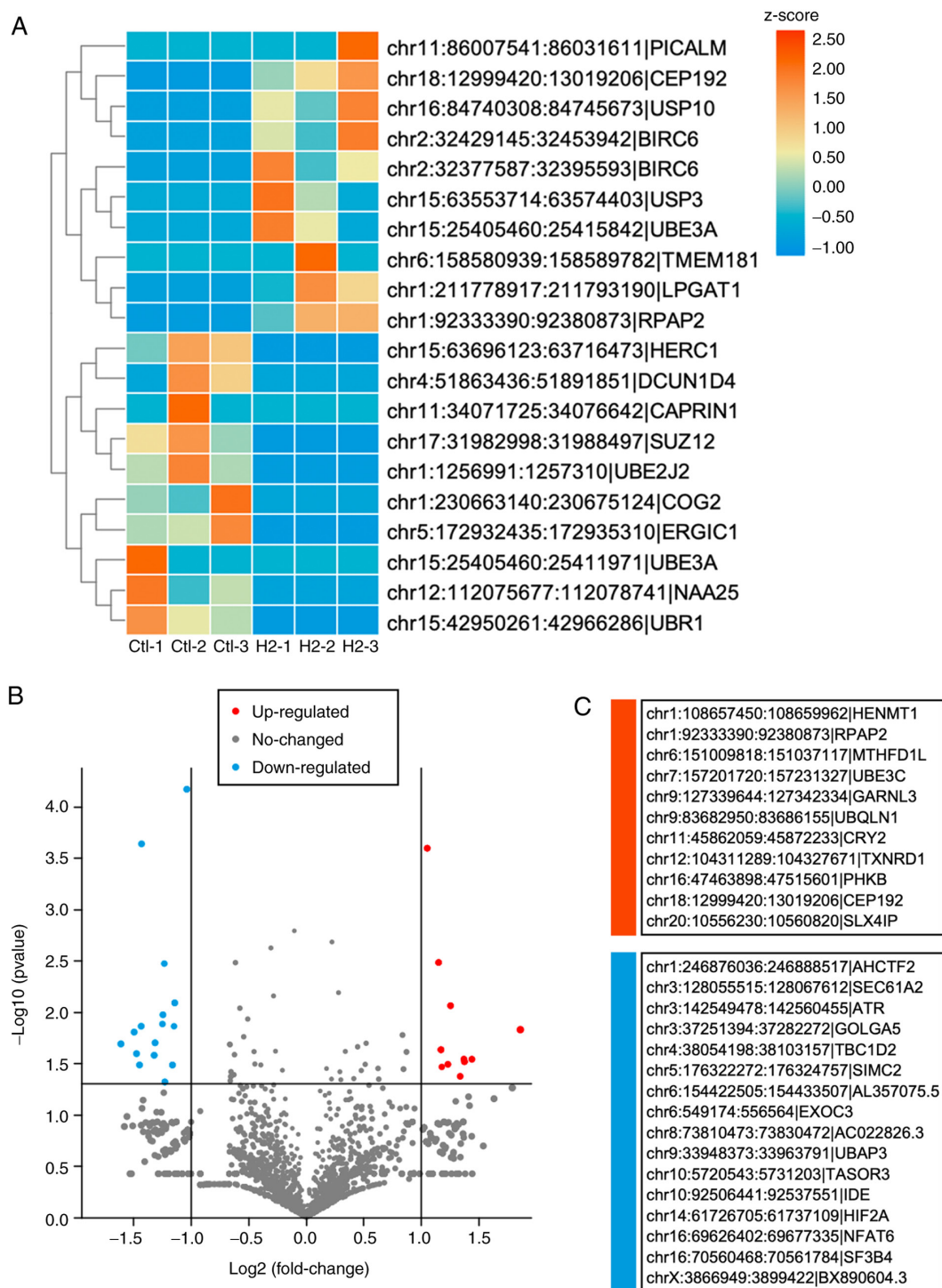


Figure S2. Highly deregulated lncRNAs in HeLa cells with or without hydrogen intervention. (A) lncRNA heatmap was generated based on the 10 maximum and 10 minimum FC values (n=3 per group). (B) Volcano plot for deregulated lncRNAs [ $\log_2(\text{FC}) > 1$  or  $< -1$ , adjusted P-value  $< 0.05$ ] between H2 and control groups. The area above the gray horizontal solid line indicates  $P < 0.05$ . (C) Upregulated lncRNAs (red) and downregulated lncRNAs (aqua blue) are listed. lncRNAs, long non-coding RNAs.

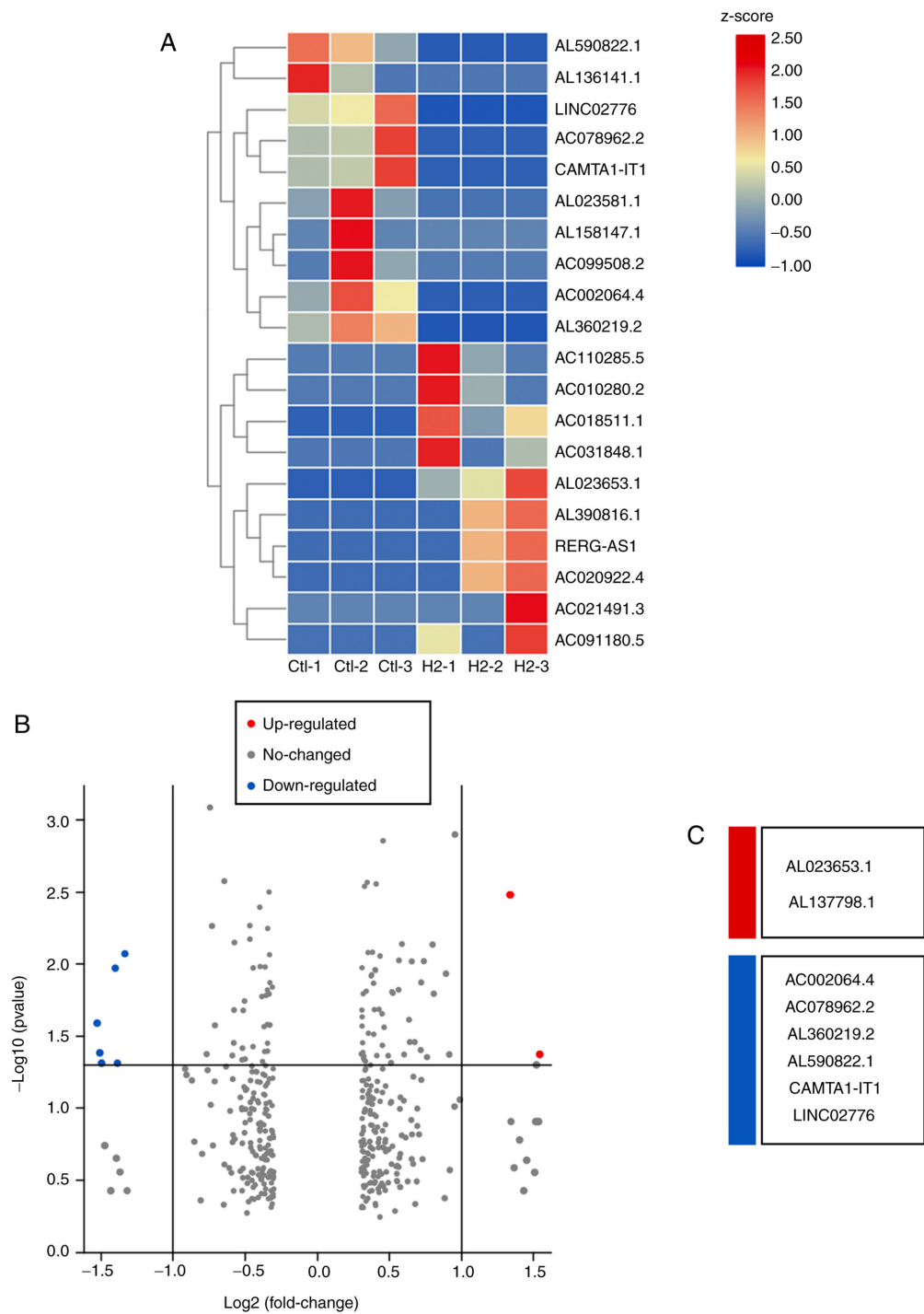


Figure S3. Highly deregulated miRNAs in HeLa cells with or without hydrogen intervention. (A) miRNA heatmap was generated based on the 10 maximum and 10 minimum FC values (n=3 per group). (B) Volcano plot for deregulated miRNAs [ $\log_2(\text{FC}) > 1$  or  $< -1$ , adjusted P-value  $< 0.05$ ] between H<sub>2</sub> and control groups. The area above the gray horizontal solid line indicates P $< 0.05$ . (C) Upregulated miRNAs (orange) and downregulated miRNAs (azure blue) are listed. miR/miRNA, microRNA.

