



**S4 Fig.** (A) Chromatin immunoprecipitation experiments were performed in A549 cells with the indicated antibodies. IgG served as a negative control and histone H3 served as a positive control. SRR1 and SRR2 were two evolutionally conserved enhancers of SOX2. (B) A549 cells were treated in the presence of epidermal growth factor receptor (EGFR) inhibitors (gefitinib at 4.4  $\mu\text{m}$  concentration, osimertinib at 4  $\mu\text{m}$  concentration and erlotinib at 4  $\mu\text{m}$  concentration) for 48 hours. The expression of mixed-lineage leukemia protein 4 (MLL4) was detected by quantitative real-time polymerase chain reaction (qPCR). (C) Whole cell lysates from A549 were immunoprecipitated (IP) with the antibody against MLL4. Immunocomplexes were resolved on sodium dodecyl sulfate polyacrylamide gel electrophoresis and analyzed by immunoblotting (IB) using antibody against p53 protein. (D) A549 cells were transfected with the indicated shRNAs, followed by qPCR analysis of the expression of the p53 and MLL4.