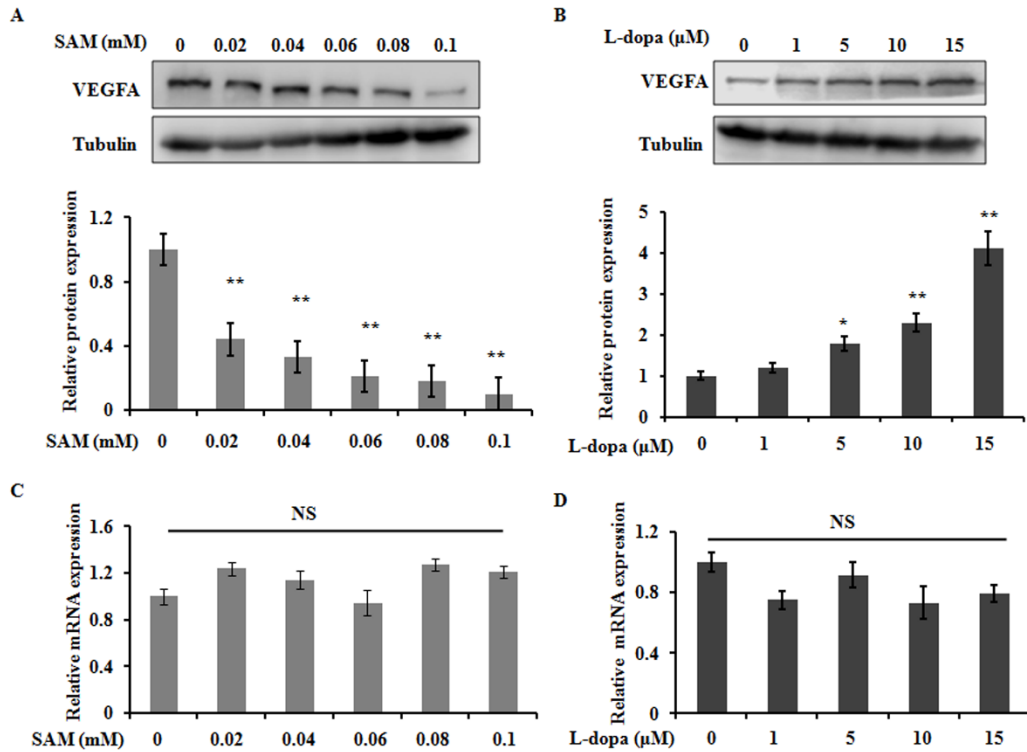
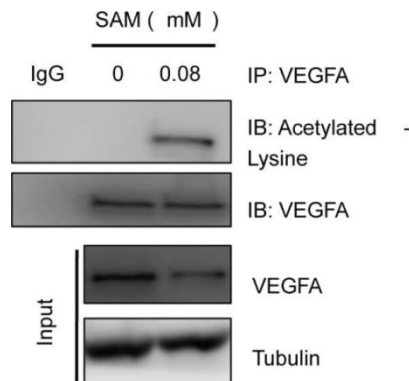


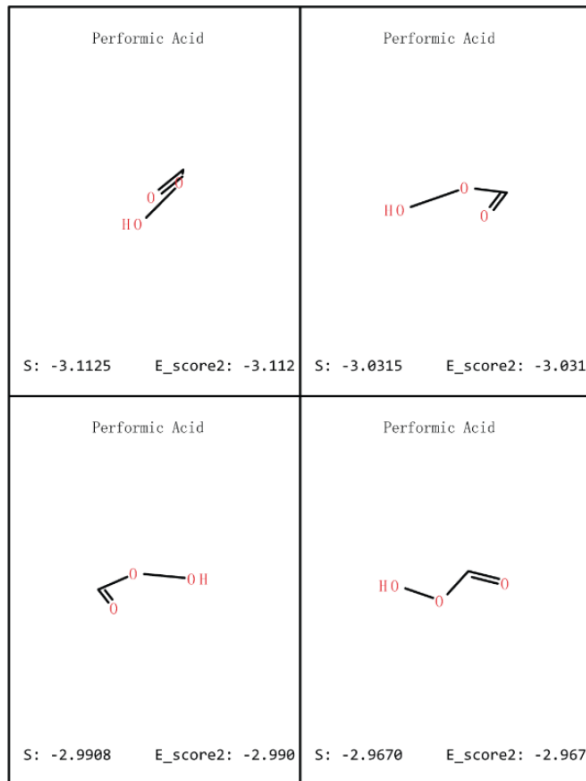
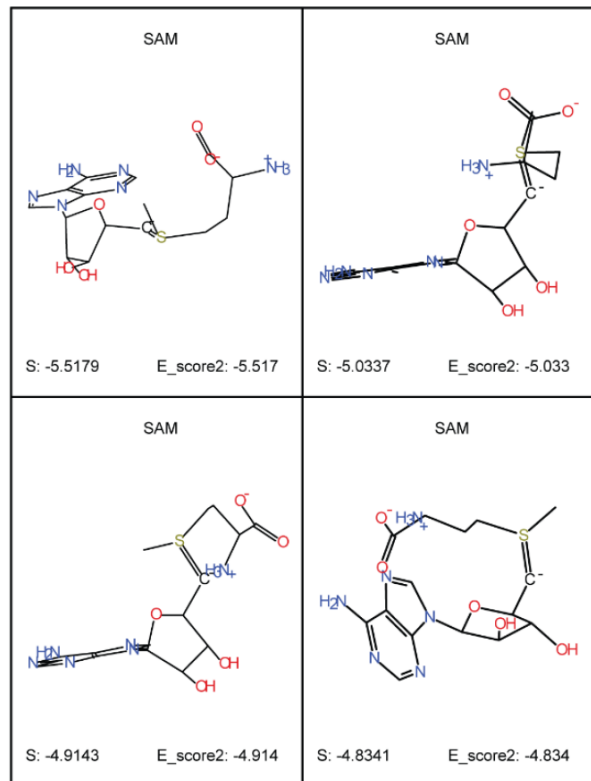
**SUPPLEMENTARY FIGURES**



**Supplementary Figure 1. The effects of SAM and L-dopa on the VEGFA expression in immortalized HUVECs.** (A and B) After treatment with indicated concentrations of SAM or L-dopa for 24 h, western blot was used to determine the VEGFA protein level in immortalized-HUVECs. (C and D) Real-time PCR analysis of VEGFA mRNA level after different concentrations of SAM or L-dopa treatment for 24 h in immortalized-HUVECs.  $\alpha$ -Tubulin was used for the loading control. The experiments were repeated for three independent times. And the quantitative results shown are means  $\pm$  SD. \* and \*\* indicated the significant difference. NS indicates no significant difference.



**Supplementary Figure 2. SAM administration enhances the acetylation level of VEGFA in immortalized HUVECs.** The immortalized HUVECs cells were treated with 0.08 mM SAM for the 24 h, followed by Co-IP with antibody against VEGFA. Immunoprecipitants were immunoblotted with the indicated antibodies.

**A****B**

**Supplementary Figure 3. The docked energy value between SAM and VEGFA.** (A and B) As predicted, SAM fit the active pocket in VEGFA with the E-score<sup>2</sup> values of -4.834 to -5.517, which is less than that of control binding mode, docked performic acid.