

Supplementary materials for:

A feedback loop driven by H3K9 lactylation and HDAC2 in endothelial cells regulates VEGF-induced angiogenesis

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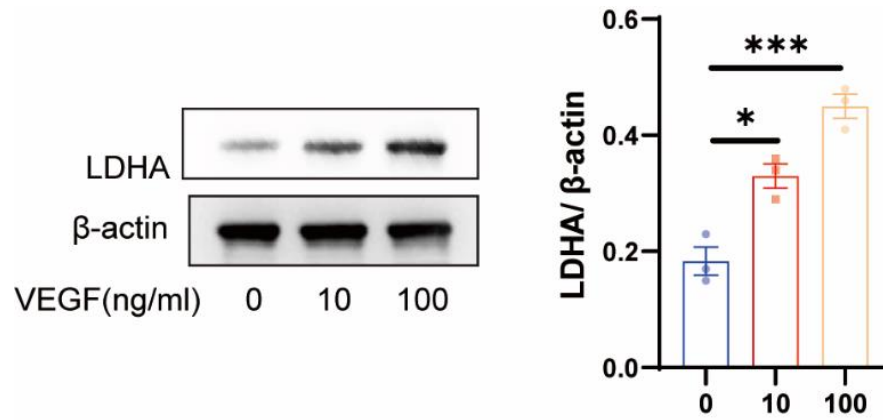


Fig S1. H3K9 lactylation is increased in endothelial cells in response to VEGF stimulation. Western blotting result of LDHA in HRMECs treated with different concentrations of VEGF (mean $\pm$ SEM; n=3 samples per group; *P < 0.05, ***P < 0.001, one-way ANOVA, Bonferroni post-hoc test)

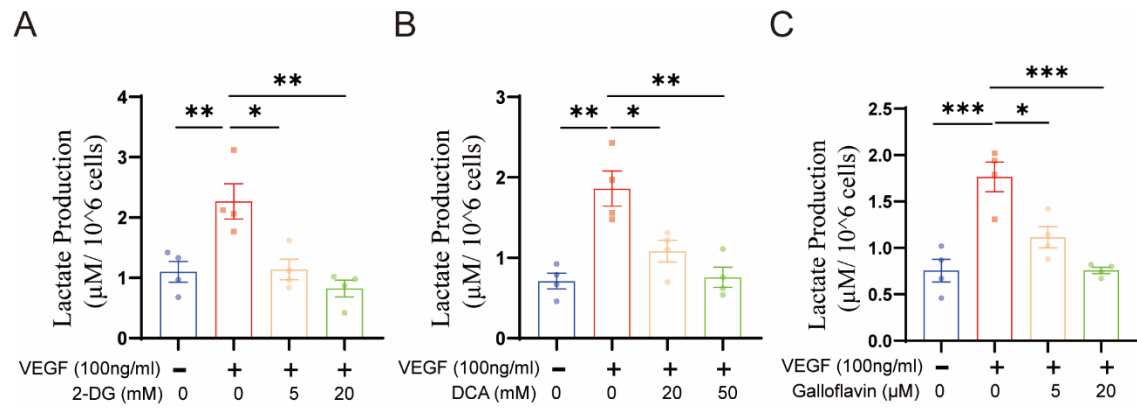


Fig S2. Inhibition of H3K9la inhibited angiogenesis in vivo and in vitro. A-C. The lactate content in HRMECs treated with glycolysis inhibitors as indicated mean $\pm$ SEM; n=4 samples per group; *P < 0.05, **P < 0.01, ***P < 0.001, one-way ANOVA, Bonferroni post-hoc test)

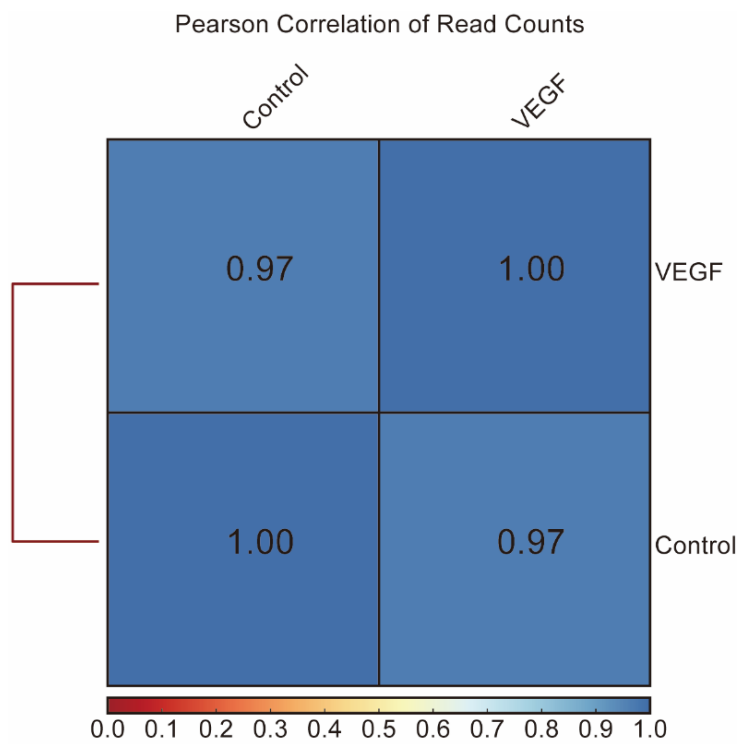


Fig S3. Pearson correlation of fold enrichment between two groups.

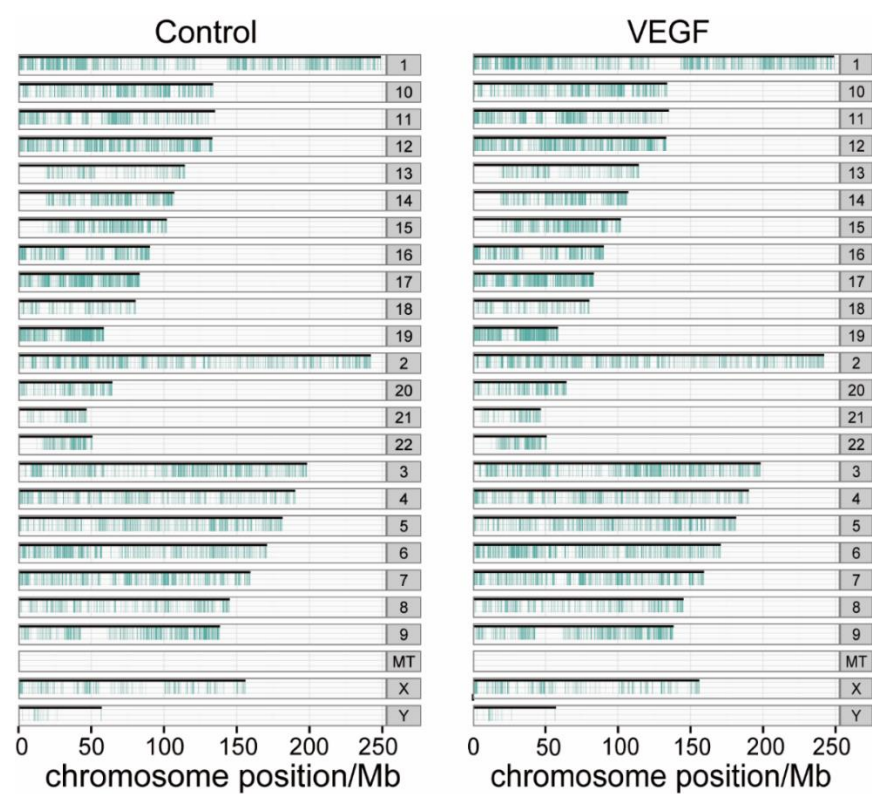


Fig S4. Location of identified peaks in chromosomes

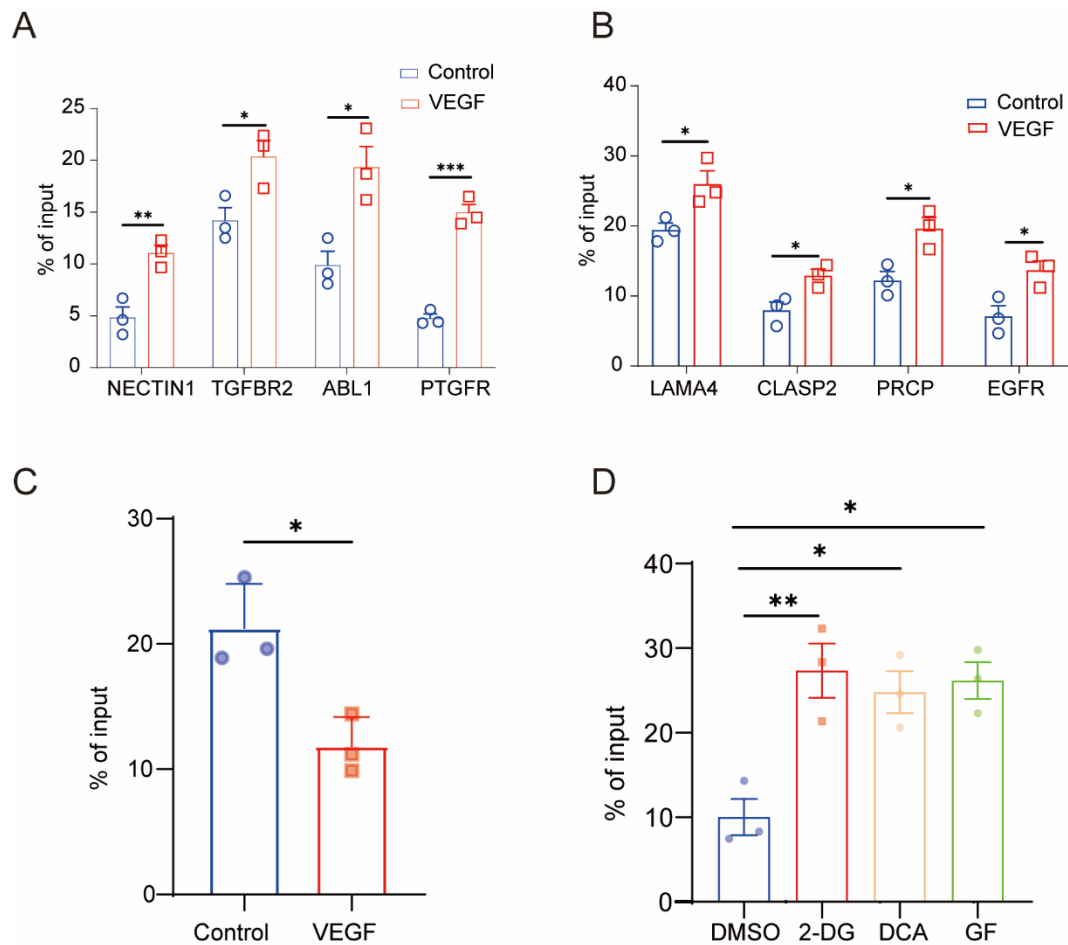


Fig S5. A feedback loop driven by H3K9 lactylation and HDAC2 promotes angiogenesis

A-B. CHIP qPCR analysis of the indicated promoters was conducted using anti-H3K9la antibodies in HRMECs under corresponding conditions (mean $\pm$ SEM; n=3 samples per group; *P < 0.05, **P<0.01, ***P < 0.001, unpaired Student's t-test)

C. CHIP qPCR revealed that hyperlactylation inhibited H3K9la's binding to the promoters of HDAC2 (mean $\pm$ SEM; n=3 samples per group; *P < 0.05, unpaired Student's t-test)

D. CHIP qPCR revealed that glycolysis inhibitors promoted H3K9la's binding to the promoters of HDAC2 (mean $\pm$ SEM; n=3 samples per group; *P < 0.05, **P<0.01, unpaired Student's t-test)