

Pathway Activation Analysis for Pan-cancer Personalized Characterization Based on Riemannian Manifold

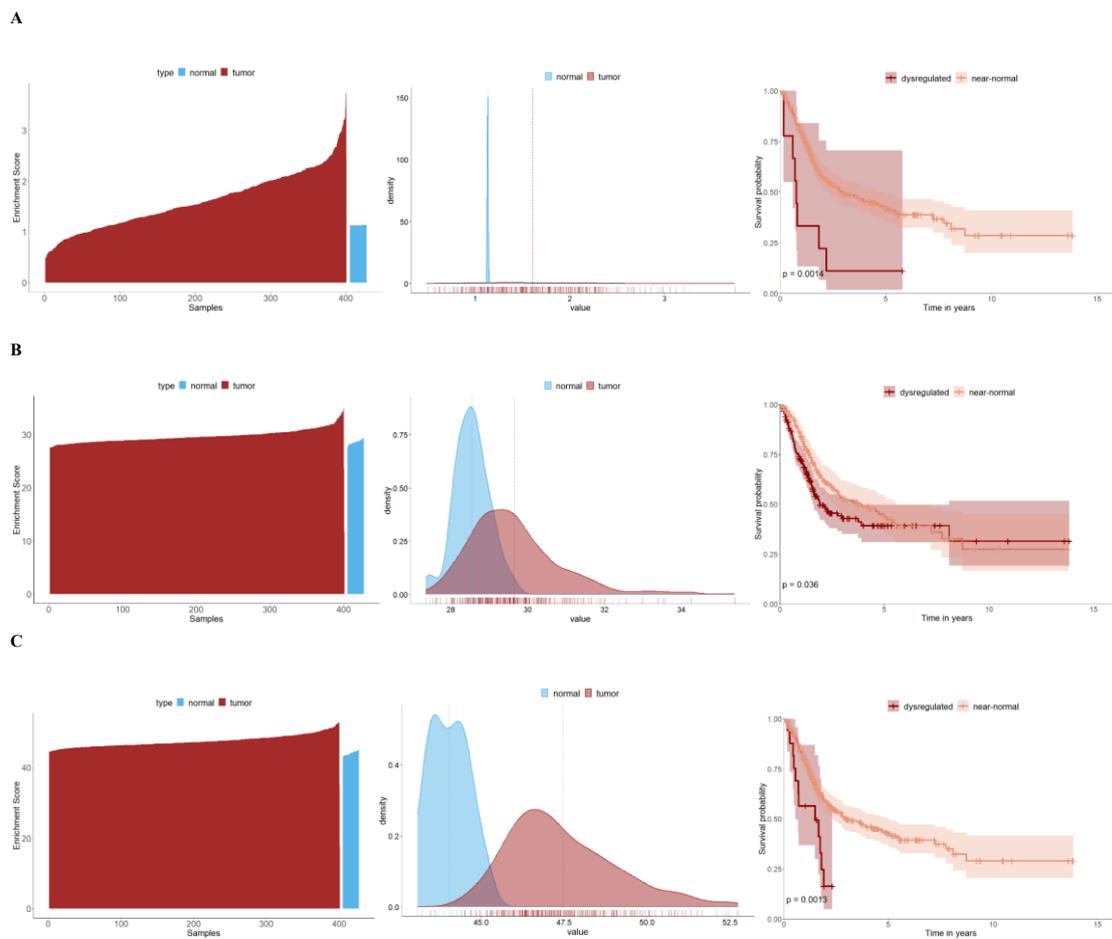
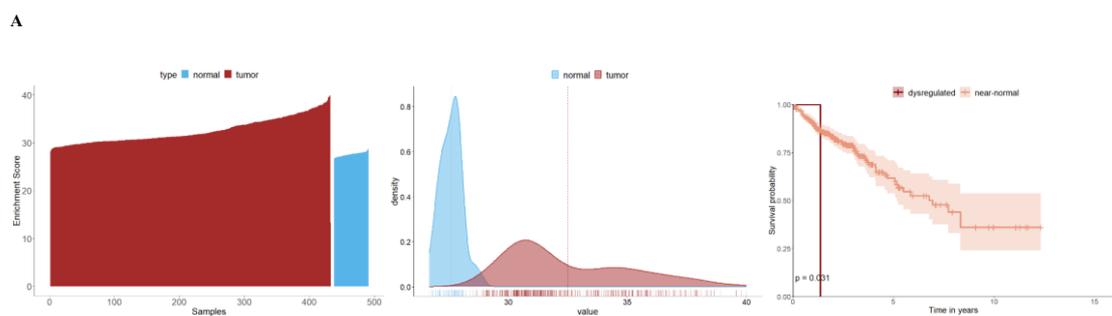
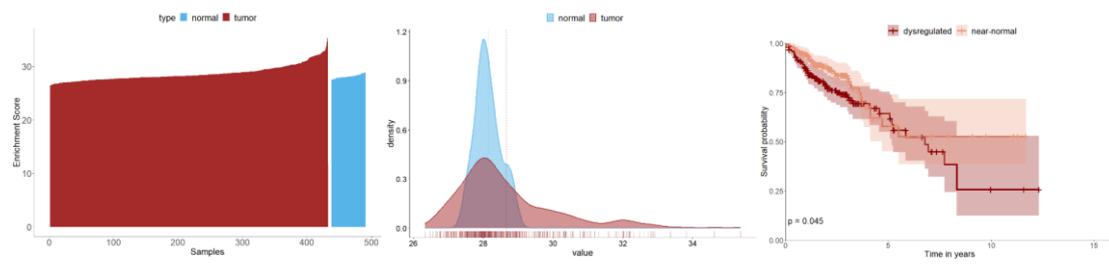


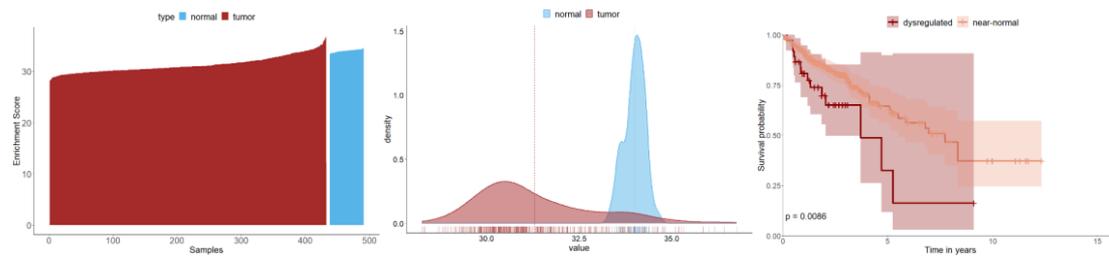
Figure S1. Signaling pathways identified by RiePath scores in BLCA. (A) IL-17 signaling pathway. (B) B cell receptor signaling pathway. (C) HALLMARK_TNFA_SIGNALING_VIA_NFKB.



B



C



D

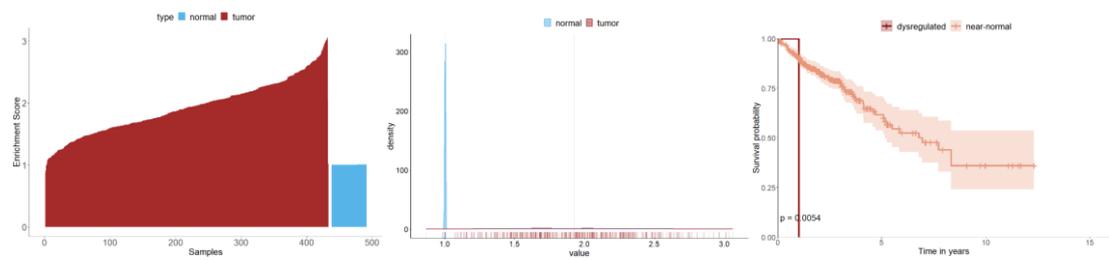
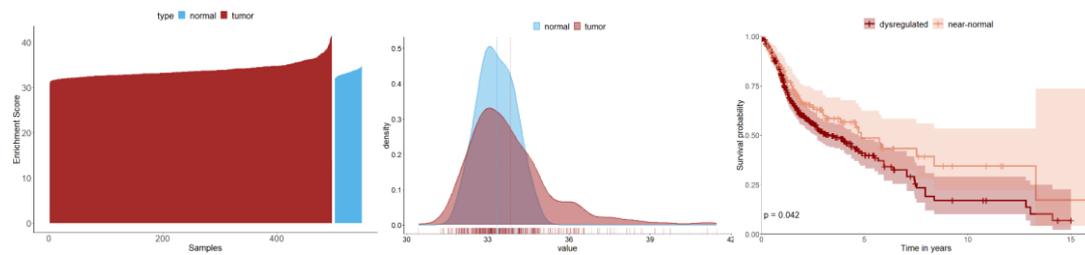
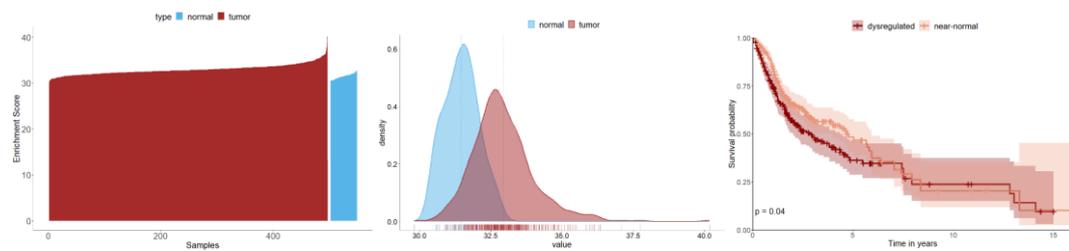


Figure S2. Signaling pathways identified by RiePath scores in COAD. (A) Phospholipase D signaling pathway. (B) C-type lectin receptor signaling pathway. (C) Thyroid hormone signaling pathway. (D) HALLMARK_NOTCH_SIGNALING.

A



B



C

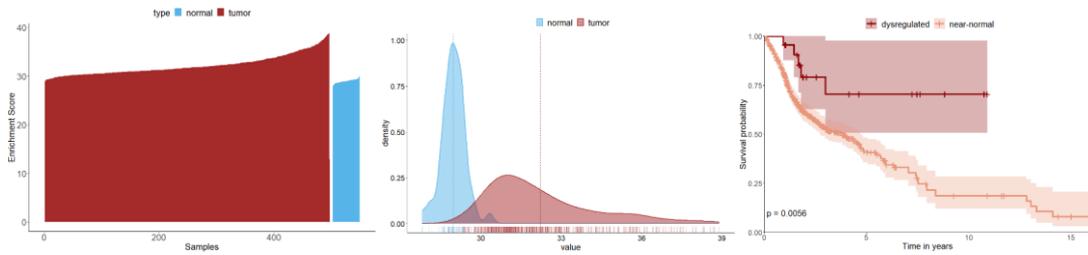


Figure S3. Signaling pathways identified by RiePath scores in HNSC. (A) NOD-like receptor signaling pathway. (B) Oxytocin signaling pathway. (C) HALLMARK_PI3K_AKT_MTOR_SIGNALING.

A

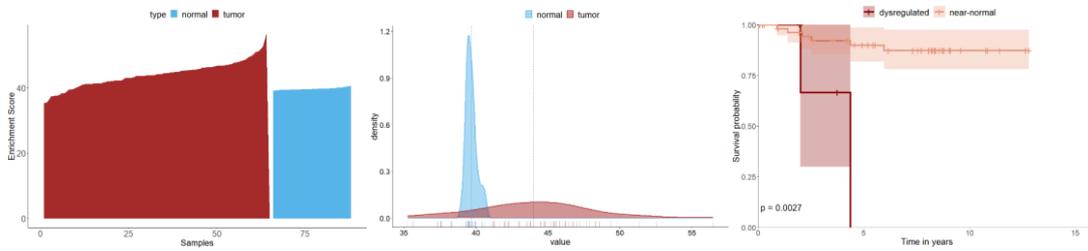
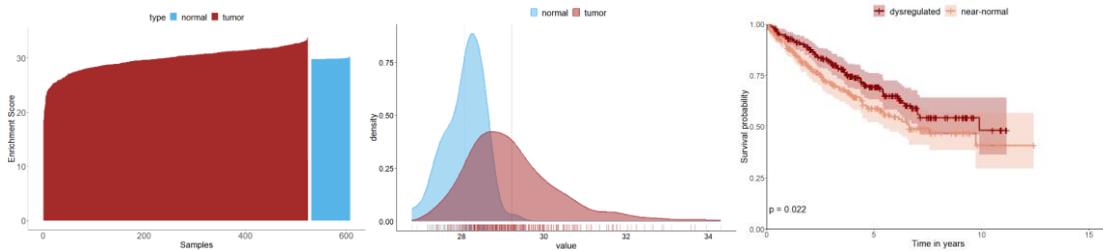


Figure S4. Signaling pathways identified by RiePath scores in KICH. (A) C-type lectin receptor signaling pathway.

A



B

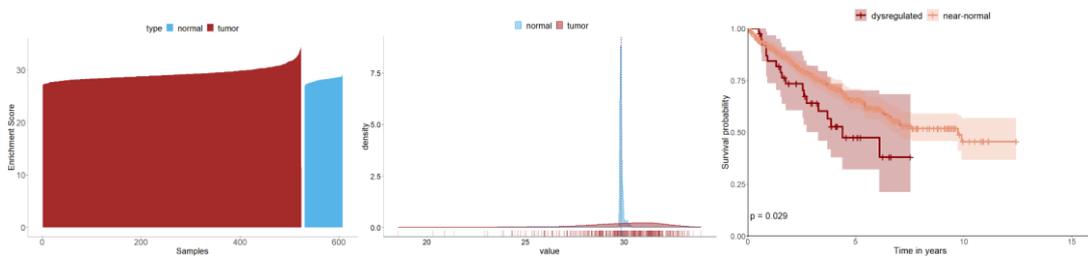


Figure S5. Signaling pathways identified by RiePath scores in KIRC. (A) cGMP-PKG signaling pathway. (B) GnRH signaling pathway.

A

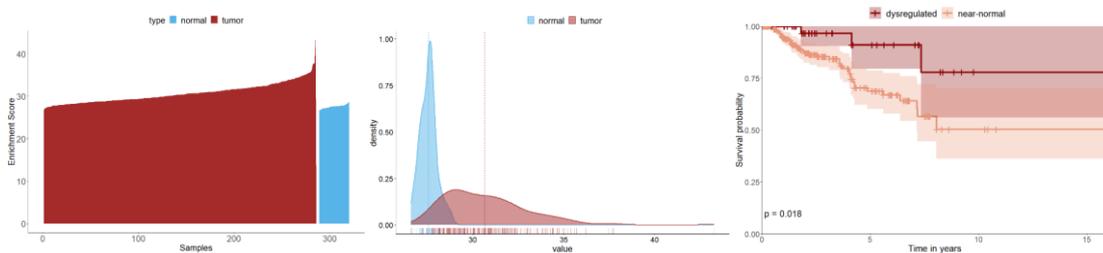
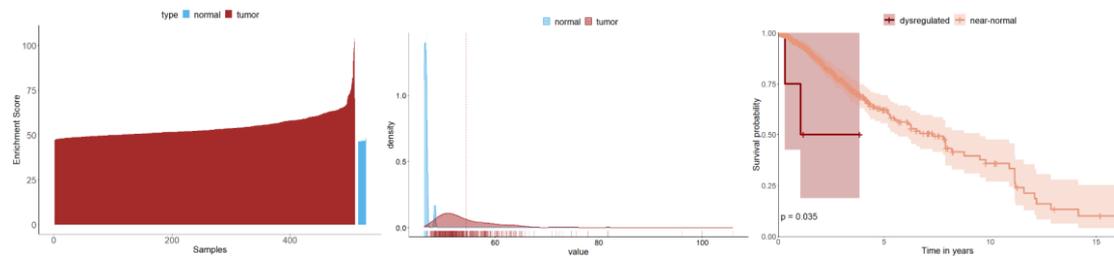
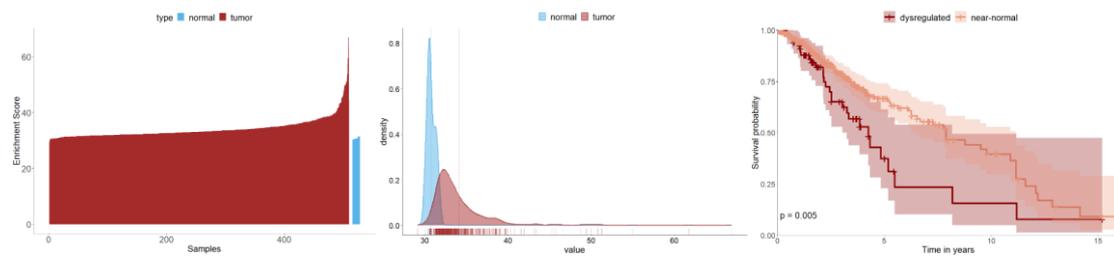


Figure S6. Signaling pathways identified by RiePath scores in KIRP. (A) PPAR signaling pathway.

A



B



C

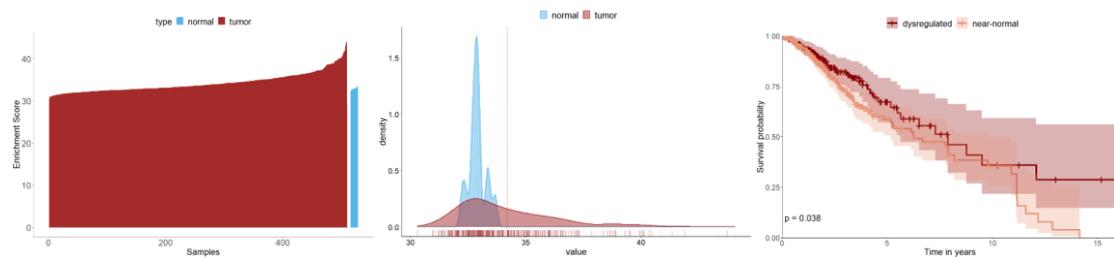
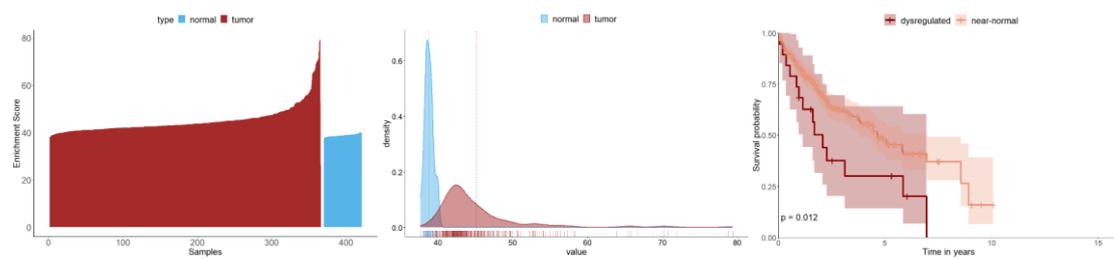
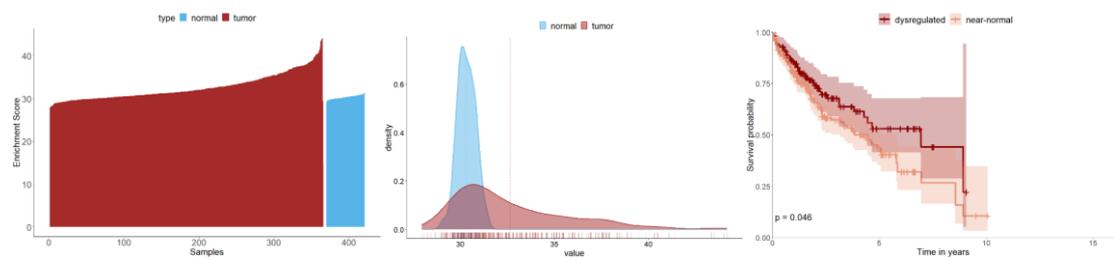


Figure S7. Signaling pathways identified by RiePath scores in LGG. (A) Rap1 signaling pathway. (B) TGF-beta signaling pathway. (C) HALLMARK_IL6_JAK_STAT3_SIGNALING.

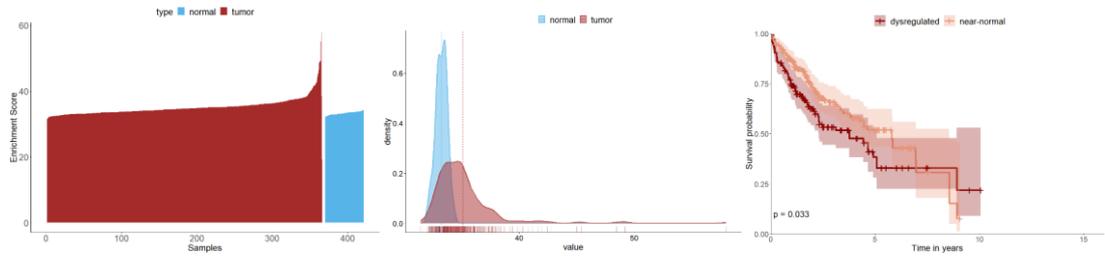
A



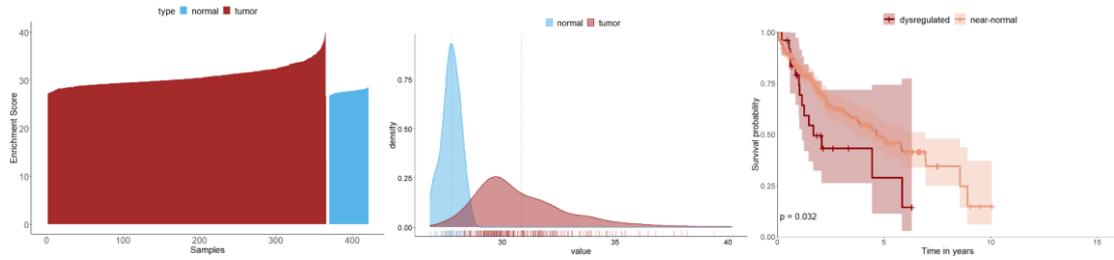
B



C



D



E

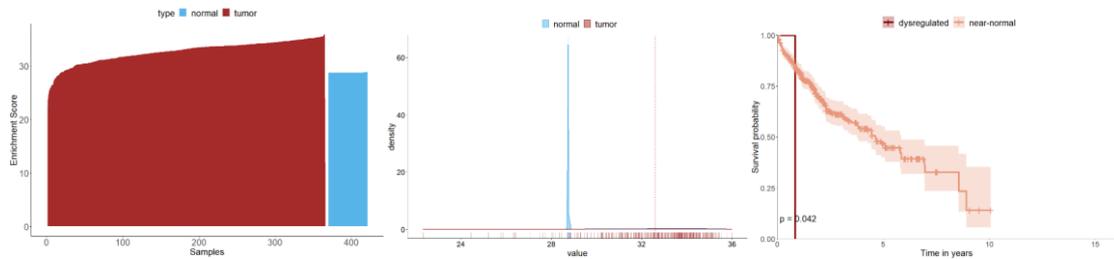


Figure S8. Signaling pathways identified by RiePath scores in LIHC. (A) Ras signaling pathway. (B) Phospholipase D signaling pathway. (C) Hippo signaling pathway. (D) Toll-like receptor signaling pathway. (E) HALLMARK_TGF_BETA_SIGNALING.

A

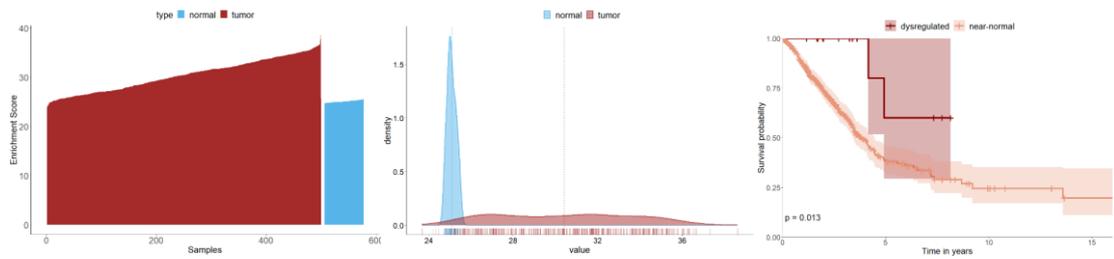
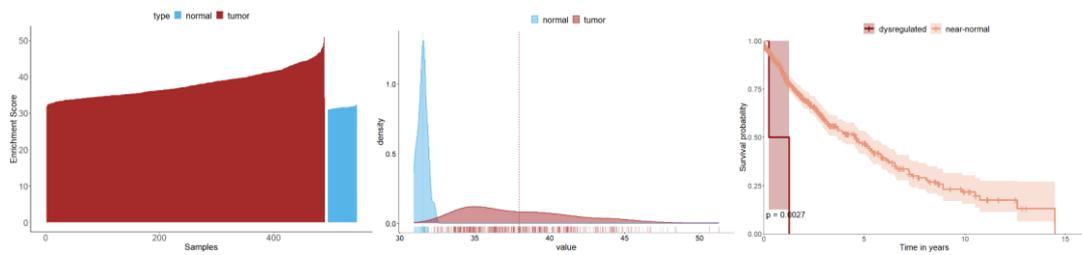


Figure S9. Signaling pathways identified by RiePath scores in LUAD. (A) AMPK signaling pathway.

A



B

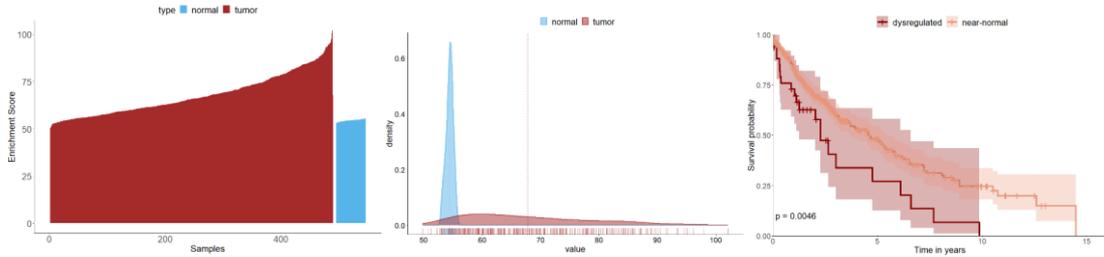
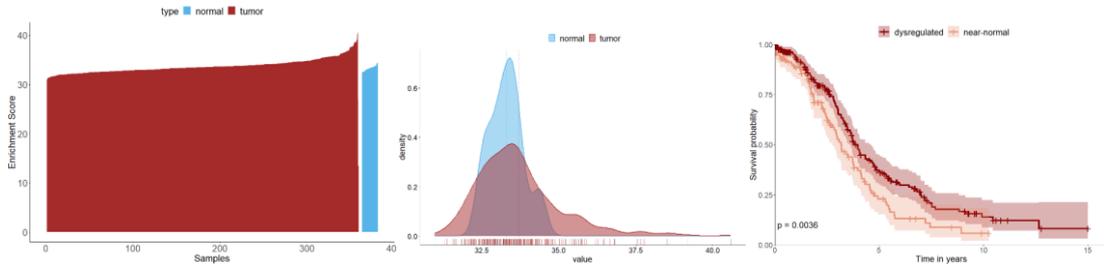


Figure S10. Signaling pathways identified by RiePath scores in LUSC. (A) Apelin signaling pathway. (B) HALLMARK_MTORC1_SIGNALING.

A



B

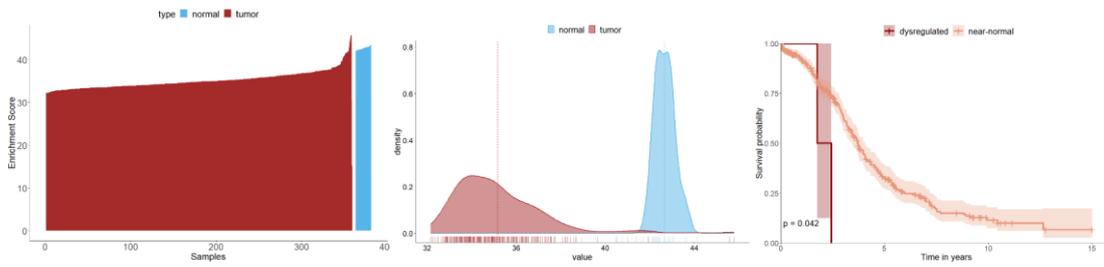


Figure S11. Signaling pathways identified by RiePath scores in OV. (A) HIF-1 signaling pathway. (B) Sphingolipid signaling pathway.

A

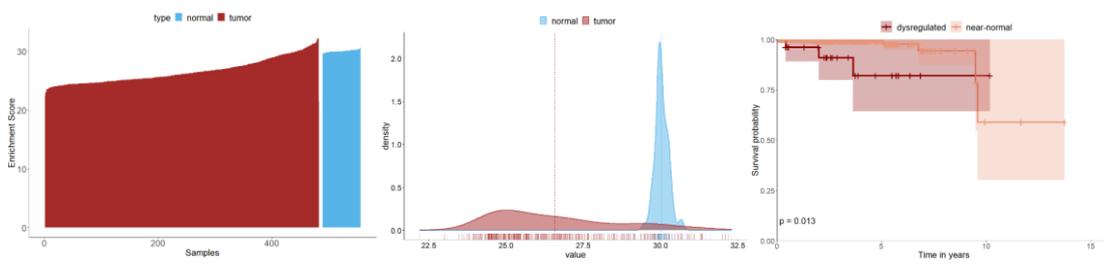
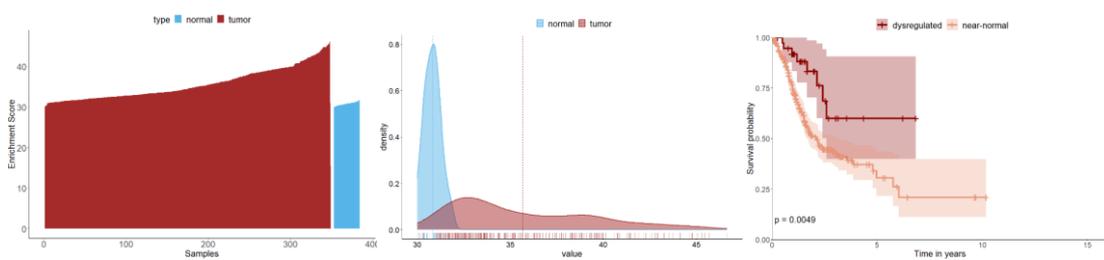


Figure S12. Signaling pathways identified by RiePath scores in PRAD. (A) Retrograde endocannabinoid signaling.

A



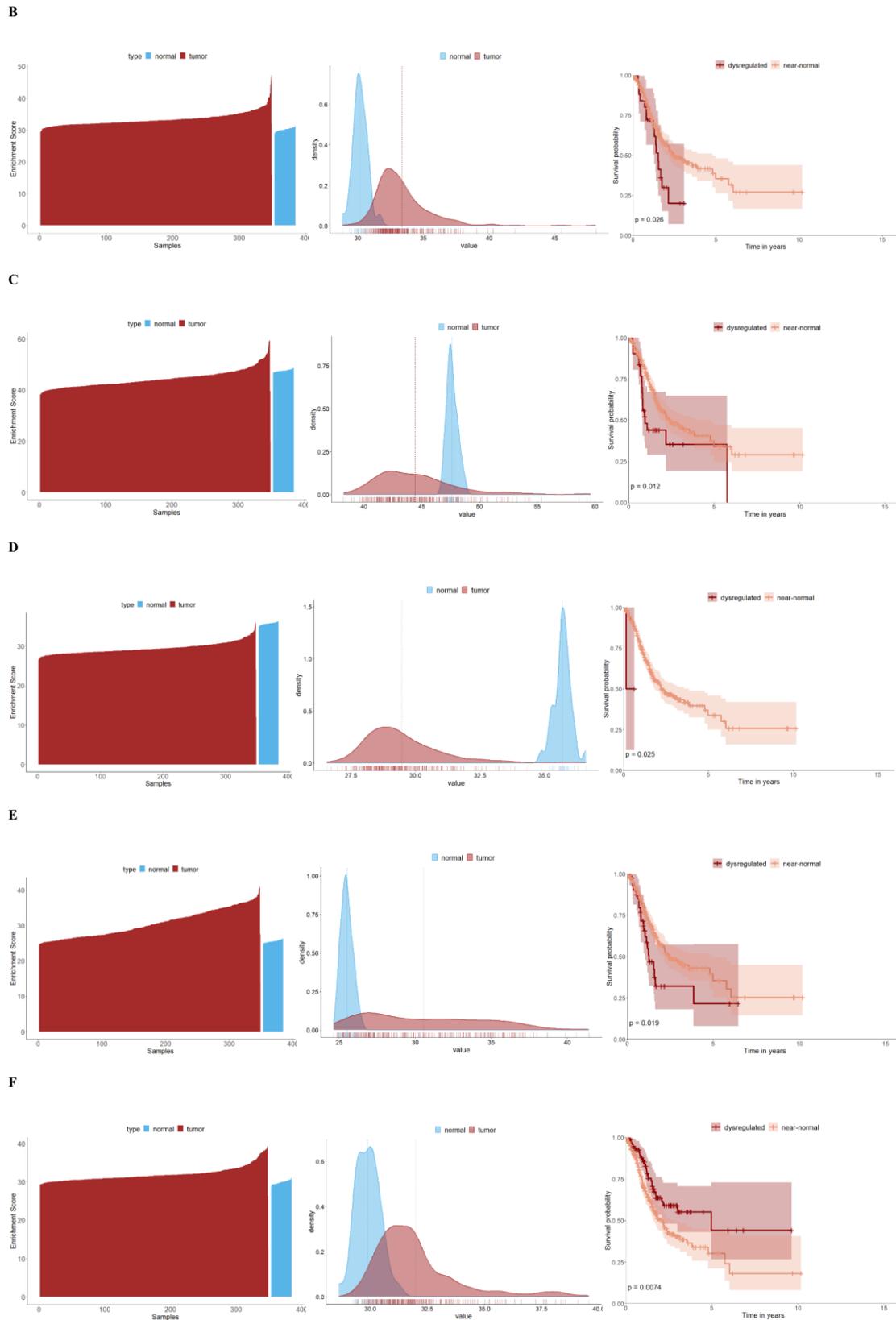


Figure S13. Signaling pathways identified by RiePath scores in STAD. (A) NF-kappa B signaling pathway. (B) HIF-1 signaling pathway. (C) Hippo signaling pathway. (D) TNF signaling pathway. (E) HALLMARK_WNT_BETA_CATENIN_SIGNALING. (F) HALLMARK_IL6_JAK_STAT3_SIGNALING.

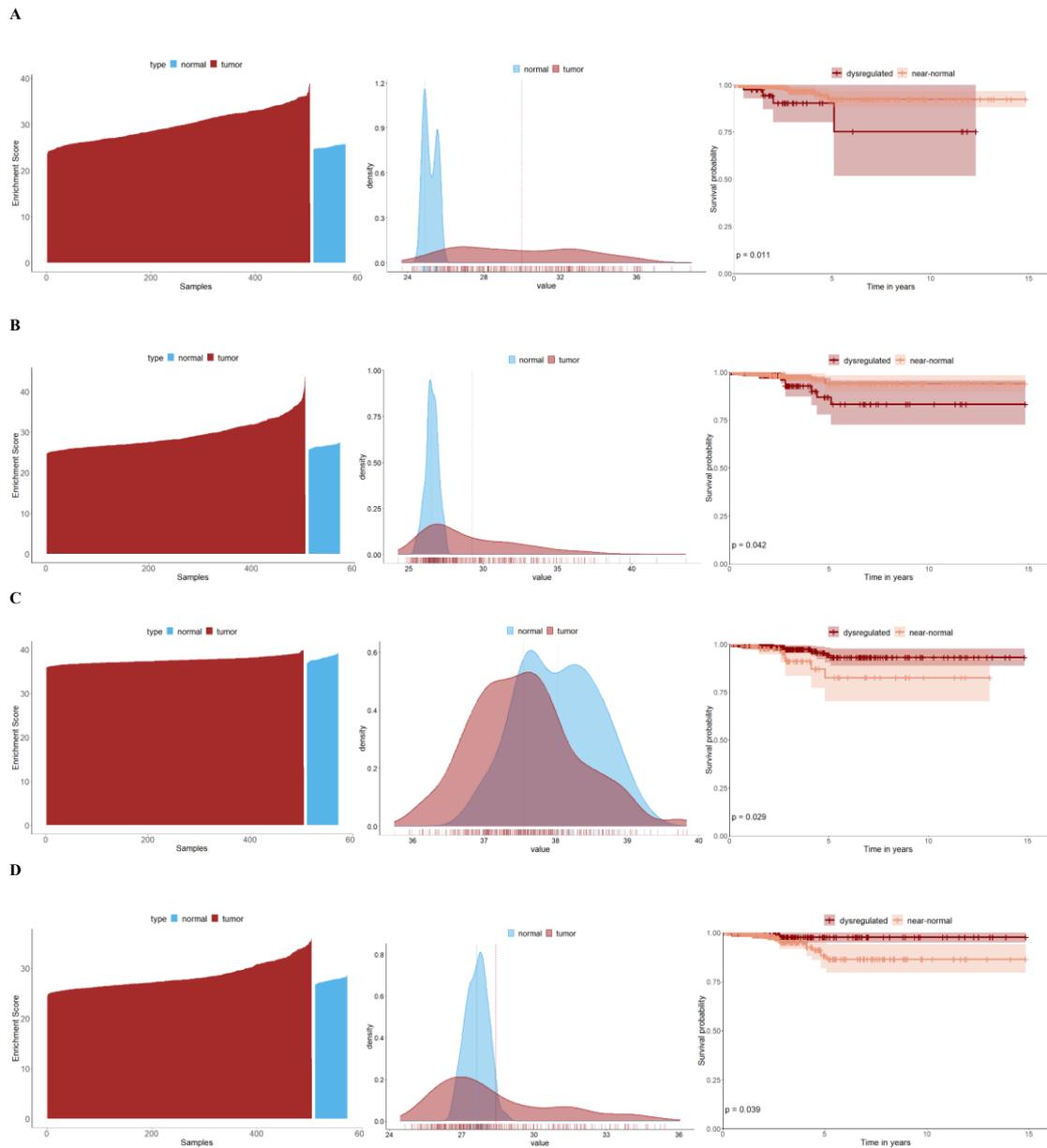
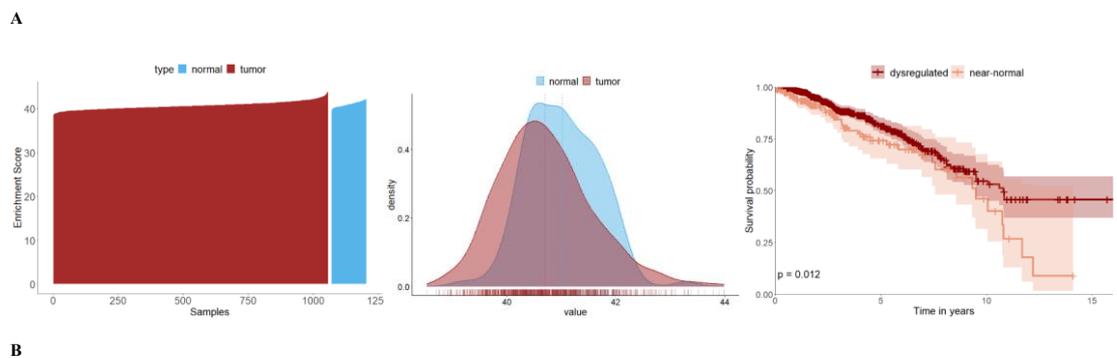


Figure S14. Signaling pathways identified by RiePath scores in THCA. (A) p53 signaling pathway. (B) AMPK signaling pathway. (C) HALLMARK_TNFA_SIGNALING_VIA_NFKB. (D) HALLMARK_IL6_JAK_STAT3_SIGNALING.



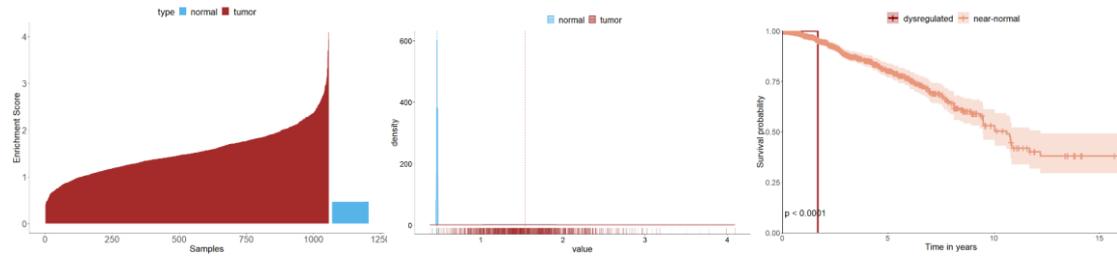


Figure S15. Other two signaling pathways identified by RiePath scores in BRCA. (A) PI3K-Akt signaling pathway. (B) VEGF signaling pathway.