



**Figure S14. Multivariable Cox regression analysis for CNA signatures.**

A. Forest plot of the multivariable Cox proportional hazards model including all seven CNA signatures (scSig1–scSig7). The plot shows the hazard ratio (HR) and 95% confidence interval (CI) for each signature. HR values >1 indicate increased risk of death (adverse prognosis), while HR <1 indicates protective associations.

B. Kaplan–Meier survival curves based on combined stratification of scSig4 and scSig6 using optimal cutoffs. P-value derived from log-rank test.