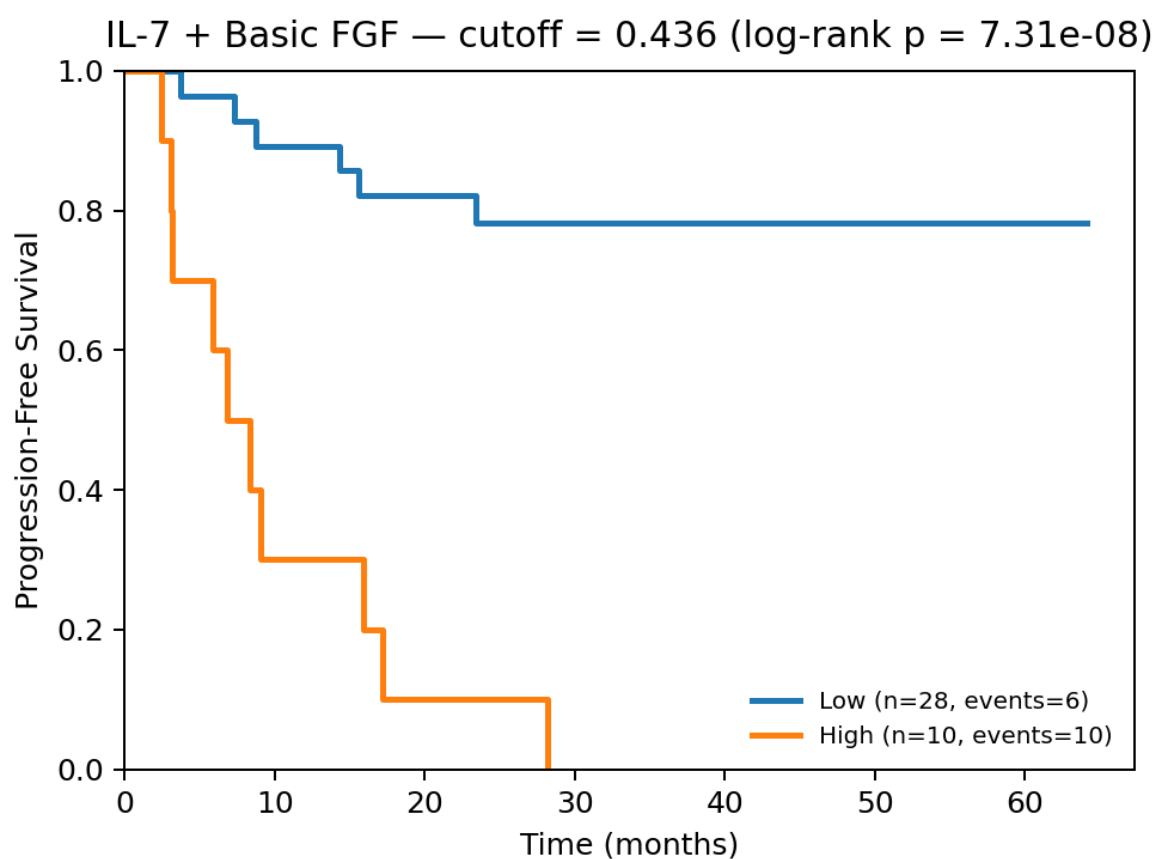
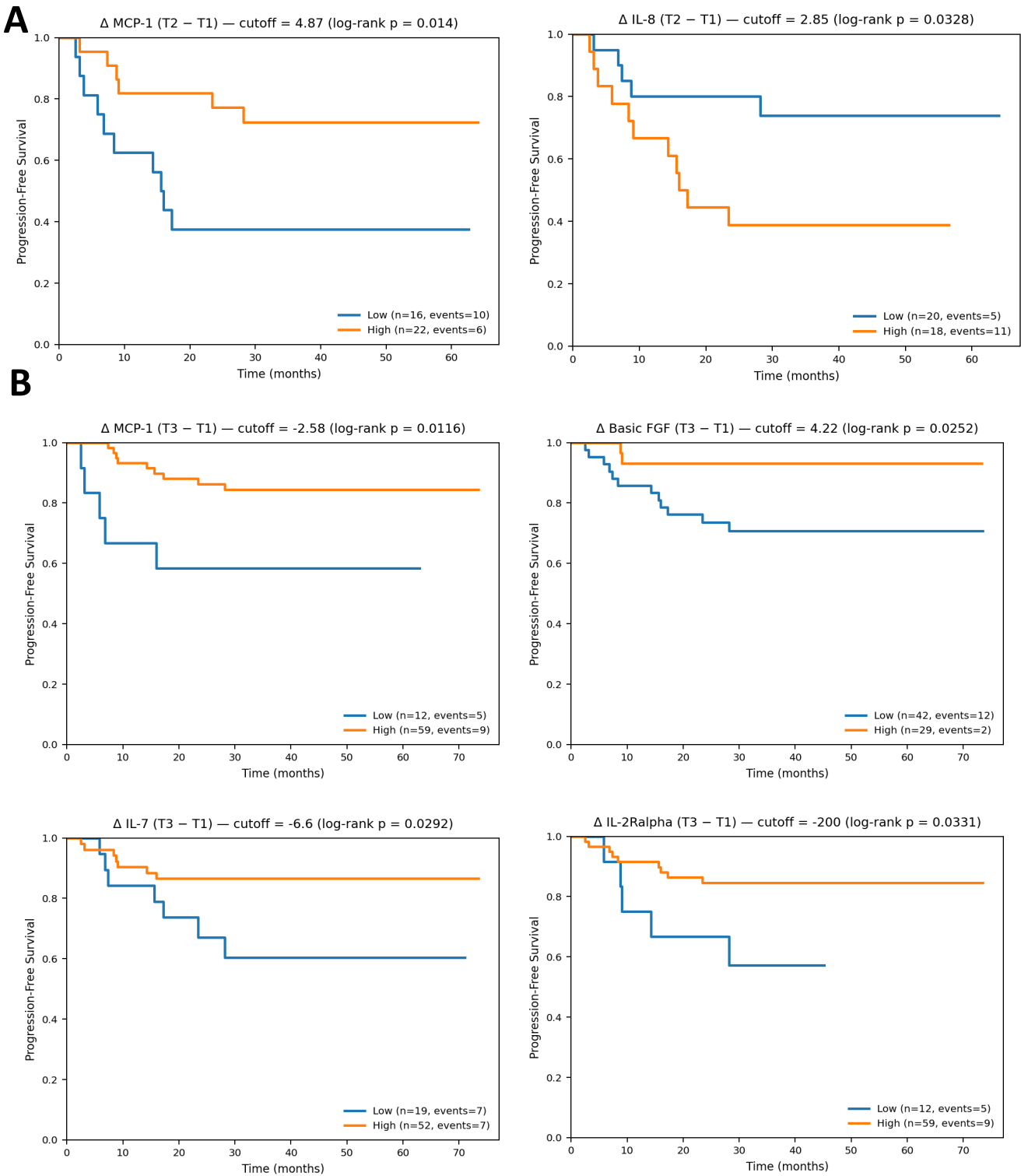


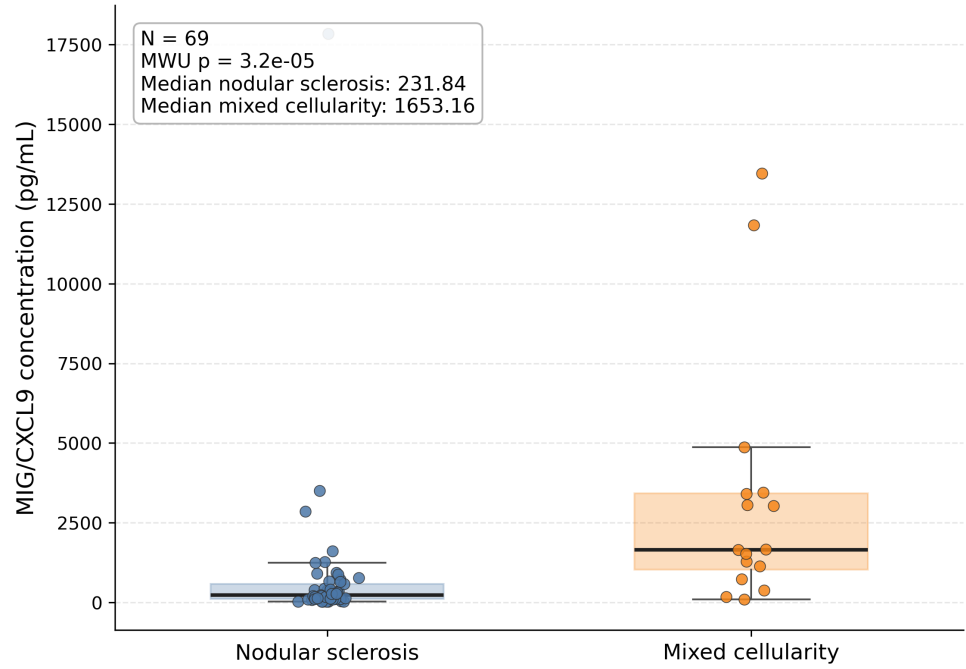


Supplementary Figure 1. Kaplan–Meier progression-free survival analysis for the best-performing T2 cytokine combination score. Kaplan–Meier progression-free survival curves according to the T2 IL-7 + Basic FGF combination score, derived from the multivariable Cox model identified in the T2 combination search. Patients were dichotomized using the optimal cut-off selected by maximally selected log-rank testing within the predefined quantile range. The cut-off value (0.436) and log-rank p value (7.31×10^{-8}) are indicated in the title, and the number of patients and events in each group are shown in the legend. This score showed the strongest discriminative performance among the evaluated T2 cytokine combinations.

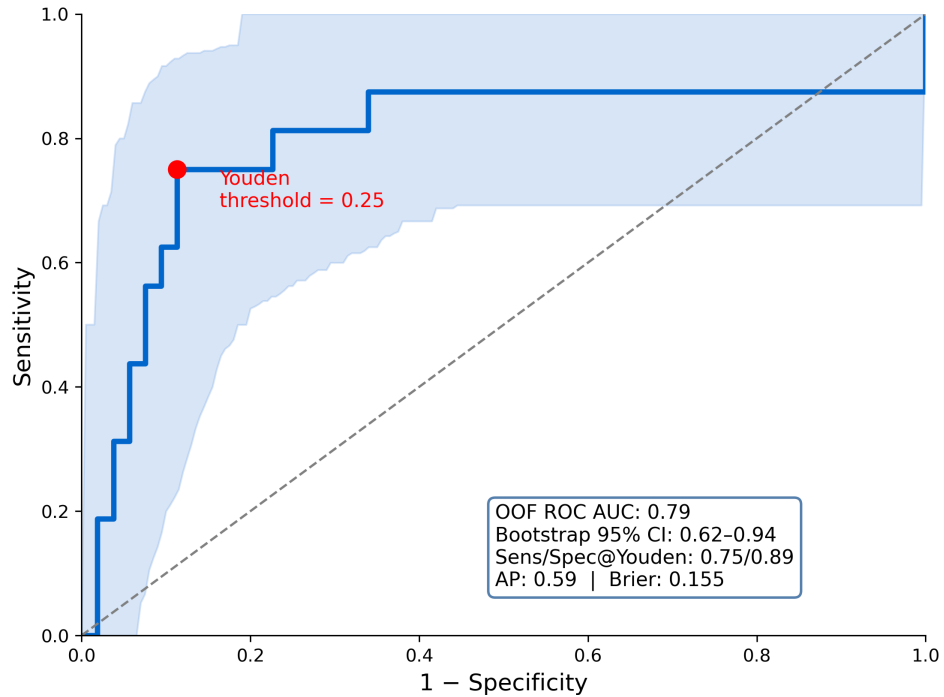


Supplementary Figure 2. Kaplan–Meier analyses of secondary delta cytokine biomarkers. (A) Kaplan–Meier progression-free survival curves for Δ MCP-1 and Δ IL-8 in the T1→T2 analysis. **(B)** Kaplan–Meier progression-free survival curves for Δ MCP-1, Δ Basic FGF, Δ IL-2Ralpha, and Δ IL-7 in the T1→T3 analysis. For each marker, patients were dichotomized using the optimal cut-off derived from log-rank-based cutpoint selection. Cut-off values and log-rank p values are shown in the titles, and group sizes and event numbers are indicated in the legends.

A



B



Supplementary Figure 3. Baseline MIG/CXCL9 discriminates histological subtype in classical Hodgkin lymphoma. (A) Distribution of baseline MIG/CXCL9 plasma levels (pg/ml) according to histological subtype, comparing nodular sclerosis and mixed cellularity cases. Central lines indicate medians, boxes indicate interquartile ranges, whiskers indicate the non-outlier range, and individual samples are overlaid as points. **(B)** Out-of-fold receiver operating characteristic (ROC) curve for discrimination of mixed cellularity versus nodular sclerosis using baseline MIG/CXCL9. The shaded area represents the 95% confidence interval estimated by bootstrap resampling of out-of-fold predictions. The red point indicates the optimal threshold defined by Youden’s index. AUC, sensitivity, specificity, average precision, and Brier score are shown in the panel.