

**Figure S1** Radiomics feature selection using the LASSO method. LASSO coefficient profiles for predicting the radiomics characterization of OS (A) and DFS (C). The subset of radiomics features selected for prediction of OS (B) and DFS (D), respectively. LASSO, least absolute shrinkage and selection operator; OS, overall survival; DFS, disease-free survival.

**Table S1** The AUC of the nomogram for predicting 3-, 5-, and 7-year OS in the training and validation cohorts

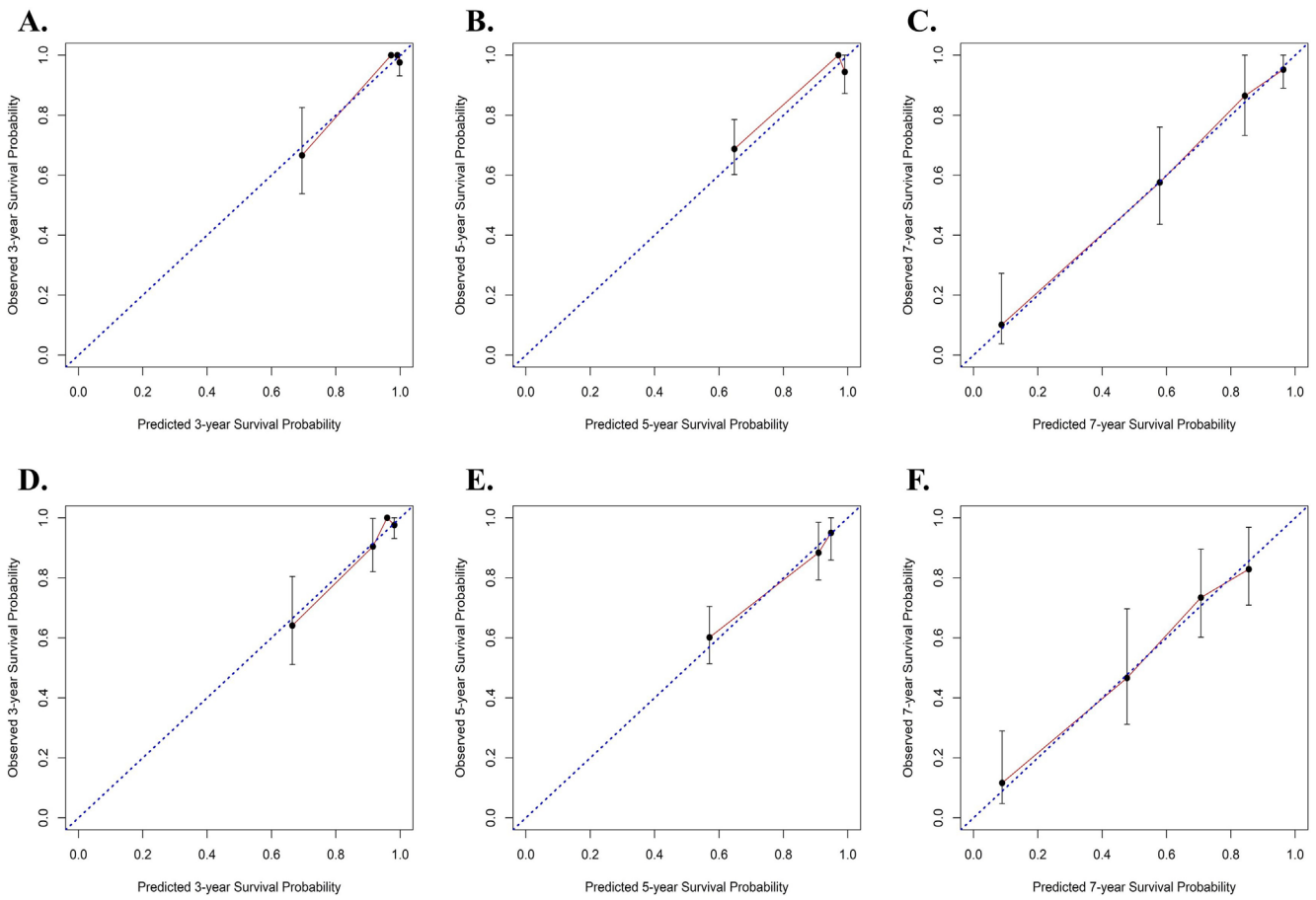
Characteristics	Training AUC (95% CI)			Validation AUC (95% CI)		
	3 years	5 years	7 years	3 years	5 years	7 years
MIP proportion	0.781 (0.662, 0.901)	0.718 (0.624, 0.811)	0.746 (0.654, 0.837)	0.480 (0.247, 0.713)	0.520 (0.389, 0.652)	0.664 (0.531, 0.797)
T-stage	0.761 (0.635, 0.887)	0.678 (0.594, 0.763)	0.579 (0.523, 0.635)	0.718 (0.498, 0.938)	0.634 (0.509, 0.759)	0.579 (0.475, 0.684)
STAS	0.549 (0.37, 0.729)	0.594 (0.489, 0.698)	0.523 (0.439, 0.607)	0.549 (0.37, 0.729)	0.594 (0.489, 0.699)	0.523 (0.439, 0.607)
CEA level	0.808 (0.702, 0.915)	0.795 (0.712, 0.879)	0.718 (0.643, 0.793)	0.718 (0.498, 0.938)	0.747 (0.624, 0.870)	0.650 (0.542, 0.758)
Rad score	0.742 (0.618, 0.865)	0.798 (0.714, 0.882)	0.881 (0.815, 0.946)	0.786 (0.662, 0.911)	0.847 (0.765, 0.929)	0.882 (0.788, 0.976)
Nomogram	0.910 (0.787, 0.933)	0.914 (0.835, 0.973)	0.904 (0.845, 0.962)	0.878 (0.776, 0.982)	0.895 (0.815, 0.975)	0.899 (0.822, 0.977)

AUC, area under the curve; OS, overall survival; 95% CI, 95% confidence interval; MIP, micropapillary; STAS, spread through air space; CEA, carcinoembryonic antigen; Rad score, radiomics score.

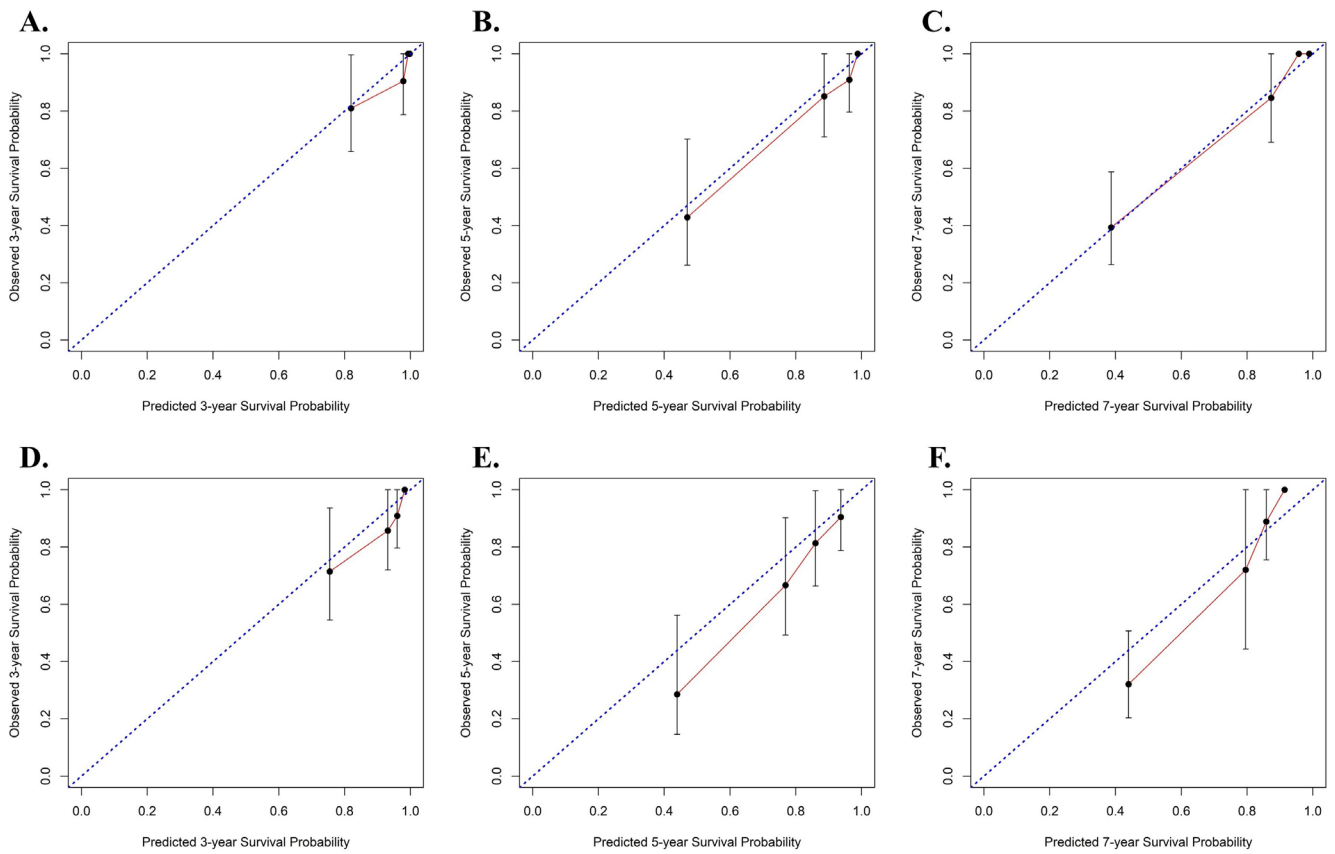
**Table S2** The AUC of the nomogram for predicting 3-, 5-, and 7-year DFS in the training and validation cohorts

Characteristics	Training AUC (95% CI)			Validation AUC (95% CI)		
	3 years	5 years	7 years	3 years	5 years	7 years
MIP proportion	0.750 (0.642, 0.859)	0.677 (0.588, 0.766)	0.700 (0.601, 0.798)	0.574 (0.386, 0.761)	0.629 (0.504, 0.755)	0.702 (0.592, 0.811)
T-stage	0.664 (0.542, 0.787)	0.629 (0.551, 0.707)	0.551 (0.483, 0.620)	0.710 (0.542, 0.878)	0.652 (0.548, 0.756)	0.659 (0.564, 0.754)
STAS	0.691 (0.57, 0.813)	0.654 (0.583, 0.725)	0.572 (0.518, 0.625)	0.564 (0.423, 0.705)	0.551 (0.473, 0.630)	0.494 (0.418, 0.570)
CEA level	0.732 (0.614, 0.850)	0.722 (0.642, 0.802)	0.689 (0.620, 0.758)	0.703 (0.535, 0.872)	0.682 (0.578, 0.786)	0.595 (0.500, 0.689)
Rad score	0.553 (0.395, 0.711)	0.552 (0.444, 0.660)	0.581 (0.476, 0.686)	0.647 (0.466, 0.828)	0.578 (0.440, 0.716)	0.669 (0.535, 0.803)
Nomogram	0.868 (0.761, 0.976)	0.838 (0.761, 0.912)	0.848 (0.775, 0.921)	0.817 (0.697, 0.936)	0.805 (0.694, 0.917)	0.811 (0.699, 0.922)

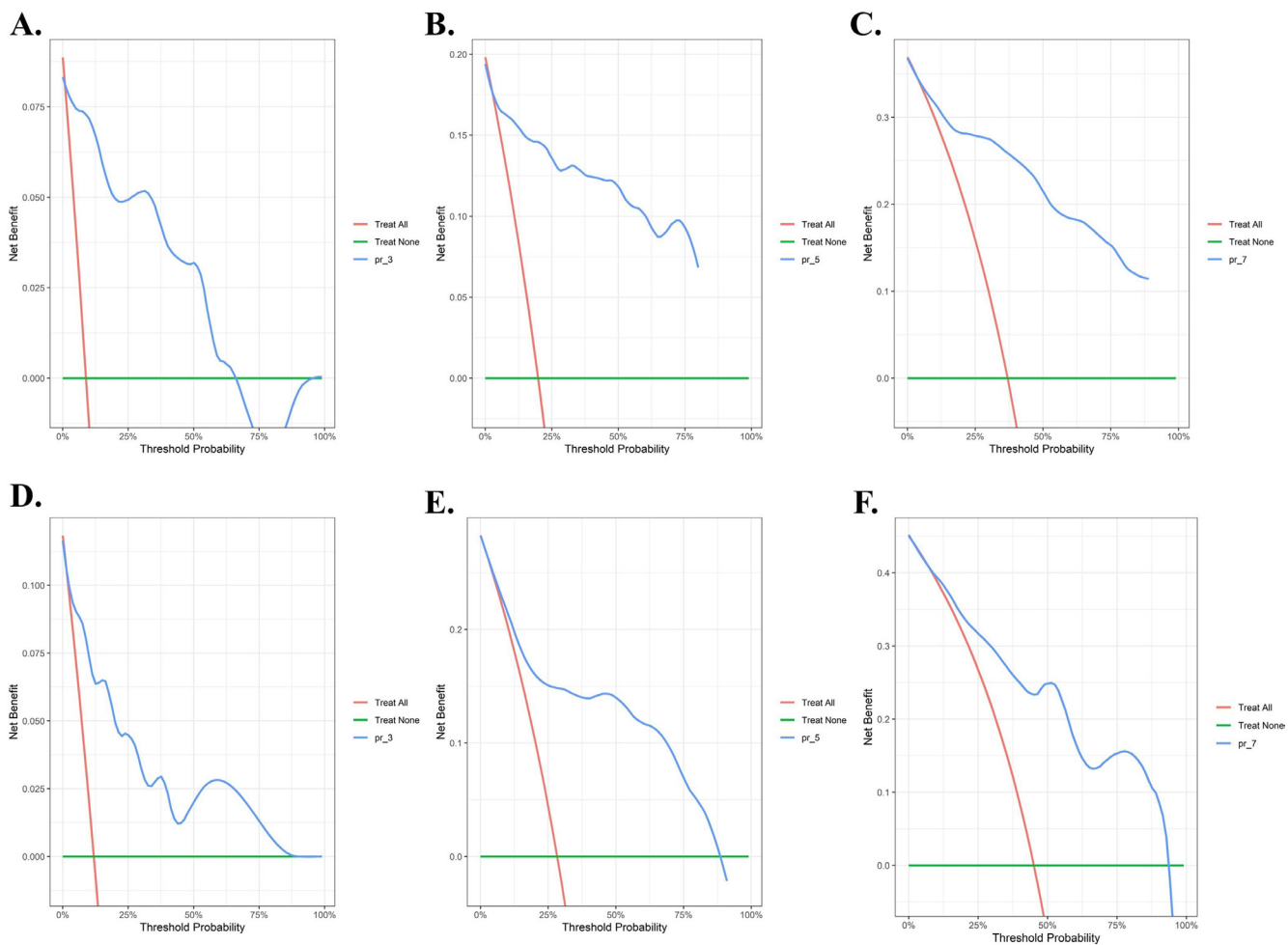
AUC, area under the curve; DFS, disease-free survival; 95% CI, 95% confidence interval; MIP, micropapillary; STAS, spread through air space; CEA, carcinoembryonic antigen; Rad score, radiomics score.



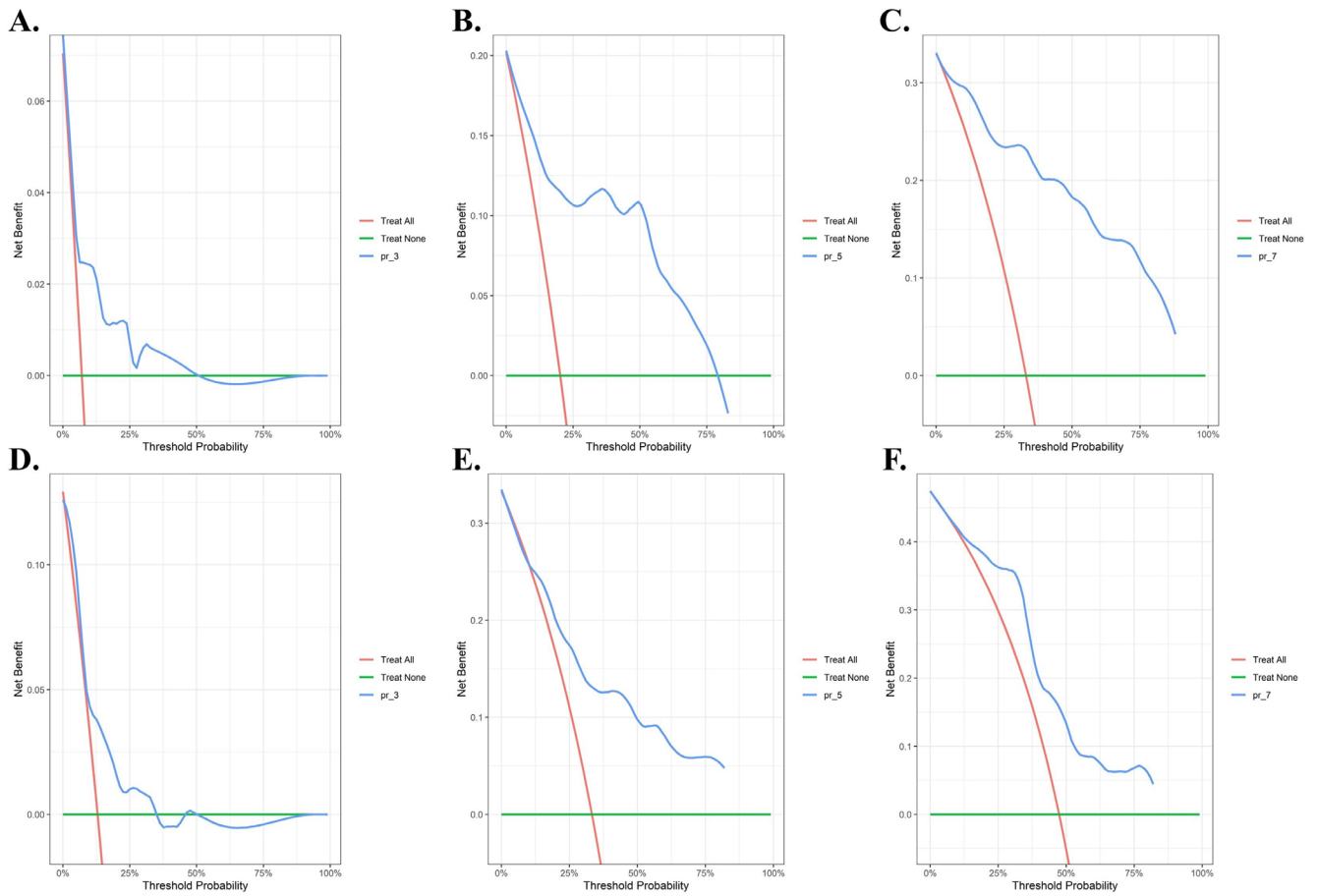
**Figure S2** Calibration curves for nomograms predicting OS and DFS in the training cohort. Calibration curves for nomograms predicting 3-year OS (A), 5-year OS (B), 7-year OS (C), 3-year DFS (D), 5-year DFS (E), and 7-year DFS (F) in the training cohort. OS, overall survival; DFS, disease-free survival.



**Figure S3** Calibration curves for nomograms predicting OS and DFS in the validation cohort. Calibration curves for nomograms predicting 3-year OS (A), 5-year OS (B), 7-year OS (C), 3-year DFS (D), 5-year DFS (E), and 7-year DFS (F) in the validation cohort. OS, overall survival; DFS, disease-free survival.



**Figure S4** Decision curves for nomograms predicting OS and DFS in the training cohort. Decision curves for nomograms predicting 3-year OS (A), 5-year OS (B), 7-year OS (C), 3-year DFS (D), 5-year DFS (E), and 7-year DFS (F) in the training cohort. OS, overall survival; DFS, disease-free survival.



**Figure S5** Decision curves for nomograms predicting OS and DFS in the validation cohort. Decision curves for nomograms predicting 3-year OS (A), 5-year OS (B), 7-year OS (C), 3-year DFS (D), 5-year DFS (E), and 7-year DFS (F) in the validation cohort. OS, overall survival; DFS, disease-free survival.