

Table S1. Characteristics of patients in external validation cohort

Characteristics	Validation cohort 2 (n=105)
Age, n (%)	
≥40	79 (5.7%)
<40	26 (1.9%)
Sex, n (%)	
Male	85 (6.1%)
Female	20 (1.4%)
Marital_status, n (%)	
Divorced	23 (1.7%)
Married	82 (5.9%)
Single	0 (0%)
Other	0 (0%)
Race, n (%)	
White	0 (0%)
Other	105 (7.5%)
Black	0 (0%)
Grade, n (%)	
Unknown	49 (3.5%)
Poor/Undifferentiated	26 (1.9%)
Well/Moderate	30 (2.2%)
AJCC_Stage, n (%)	
stage I-II	15 (1.1%)
Unknown	43 (3.1%)
stage III-IV	47 (3.4%)
Dissected lymph nodes, n (%)	
0	91 (6.5%)
1-3	11 (0.8%)
≥4	3 (0.2%)
Surgery, n (%)	
No	69 (5%)
Yes	36 (2.6%)
Chemotherapy, n (%)	

No	74 (5.3%)
Yes	31 (2.2%)
AFP, n (%)	
Negative	31 (2.2%)
Positive	74 (5.3%)
Unknown	0 (0%)
Tumor_size, n (%)	
≤5cm	23 (1.7%)
5-10cm	45 (3.2%)
>10cm	37 (2.7%)
Tumor_Number, n (%)	
1	103 (7.4%)
2	2 (0.1%)
