

Table S1 The sequences of primers

Genes	Primer sequence
<i>U6</i>	F: 5' GCTTCGGCAGCACATATACTAAAAT 3' R: 5' CGCTTACGAATTTGCGTGTCAT 3'
<i>tRF-Ala-AGC-060</i>	F: 5' GTCCGACGATCTCCCCAGTA 3' R: 5' TGTGCTCTTCCGATCTTGGT 3'
<i>tiRNA-Gly-GCC-002</i>	F: 5' ACAGTCCGACGATCGCATG 3' R: 5' GTGCTCTTCCGATCTCAGGC 3'
<i>tRF-Lys-CTT-008</i>	F: 5' GATCGCCCGGCTAGCTCAGT 3' R: 5' CCGATCTGTCTCATGCTCTACCG 3'
<i>tRF-Ala-AGC-010</i>	F: 5' TCTACAGTCCGACGATCTCC 3' R: 5' TTCCGATCTTGGTGGAGGTG 3'
<i>tRF-Leu-AAG-001</i>	F: 5' AGTCCGACGATCATCCCACC 3' R: 5' GCTCTTCCGATCTTGGTGGC 3'
<i>tRF-Val-AAC-001</i>	F: 5' CTACAGTCCGACGATCAACCG 3' R: 5' TCTTCCGATCTTGGTGTTC 3'
<i>tRF-Gly-GCC-011</i>	F: 5' CTACAGTCCGACGATCGCATG 3' R: 5' ATCTAGGCGAGAATTCTACCACTGA3'
<i>tRF-Gln-CTG-003</i>	F: 5' CTACAGTCCGACGATCGGTTC 3' R: 5' TCCAGAGTGCTAACCATTACACC 3'
<i>tRF-Glu-TTC-012</i>	F: 5' TCTCCCACATGGTCTAGCGG 3' R: 5' GTGTGCTCTTCCGATCTCCA 3'
<i>tRF-Glu-CTC-007</i>	F: 5' ATCTCCCTGGTGGTCTAGTGGTTA 3' R: 5' GTGTGCTCTTCCGATCTCCG 3'

F, forward; R, reverse.

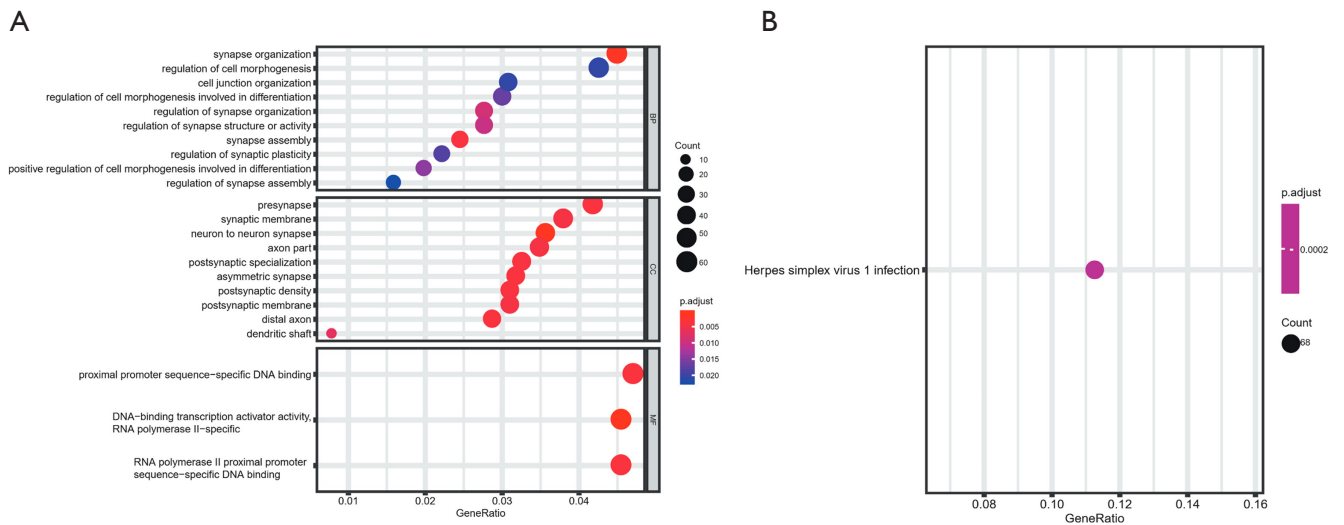


Figure S1 The function analysis of the target genes of the 6 tRNA-derived fragments. (A) GO analysis. (B) KEGG analysis. BP, biological process; CC, cell component; MF, molecular function; tRNA, transfer RNA; GO, Gene Ontology; KEGG, Kyoto Encyclopedia of Genes and Genomes.

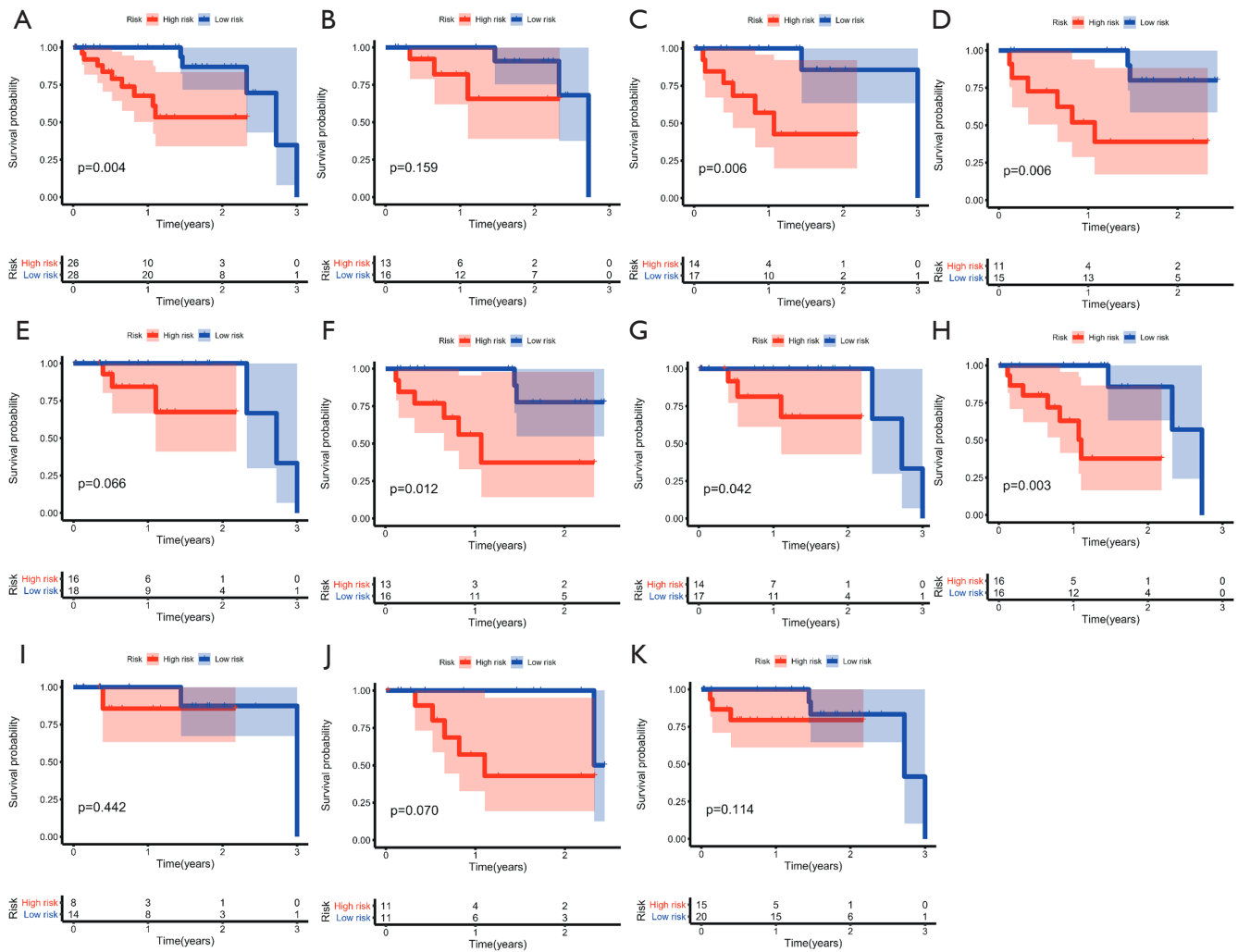


Figure S2 Kaplan-Meier survival analysis in different groups. (A) Male group; (B) young age group (≤ 60 years); (C) old age group (> 60 years); (D) high level group of ALT (> 40 U/L); (E) low level group of ALT (≤ 40 U/L); (F) high level group of AST (> 40 U/L); (G) low level group of AST (≤ 40 U/L); (H) high level group of GGT (> 50 U/L); (I) low level group of GGT (≤ 50 U/L); (J) high level group of AFP (> 25 ng/L); (K) low level group of AFP (≤ 25 ng/L). The red represented patients in the high-risk group. The blue represented patients in the low-risk group. ALT, alanine aminotransferase; AST, aspartate aminotransferase; GGT, gamma-glutamyl transferase; AFP, alpha-fetoprotein.

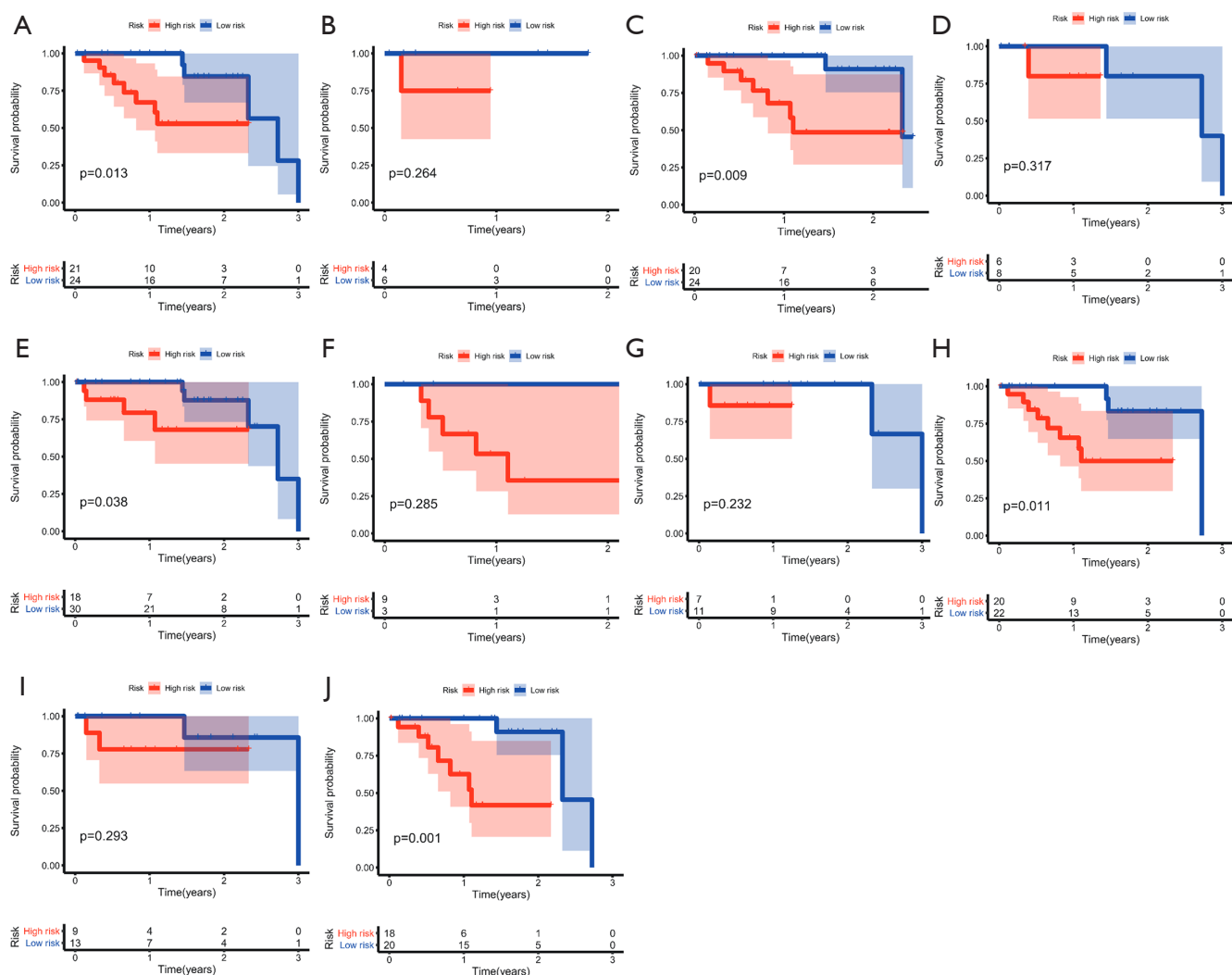


Figure S3 Kaplan-Meier survival analysis in different groups. (A) Stage T1 and T2 group; (B) stage T3 and T4 group; (C) grade I and II group; (D) grade III group; (E) group without MVI; (F) group with MVI; (G) group without HBV; (H) group with HBV; (I) group without cirrhosis; (J) group with cirrhosis. The red represented patients in the high-risk group. The blue represented patients in the low-risk group. MVI, microvascular invasion; HBV, hepatitis B virus.

Table S2 Clinical information of 6 patients

Number	Age (years)	Sex	Tumor stage	HBV	Pathological description
1	62	Male	T1	Yes	Moderate differentiation of cancer cells, no microvascular invasion
2	63	Male	T2	No	Moderate differentiation of cancer cells, microvascular invasion
3	61	Male	T2	Yes	Moderate differentiation of cancer cells, microvascular invasion
4	59	Female	T3	Yes	Moderate differentiation of cancer cells, microvascular invasion
5	64	Male	T4	Yes	Moderate differentiation of cancer cells, microvascular invasion
6	57	Female	T1	No	Highly differentiated cancer cells, no microvascular invasion

HBV, hepatitis B virus.