**Supporting Information**

Table S1 Expression of FBX8 in HCC tissues, cirrhotic liver and adjacent normal liver tissues

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Group | FBX8 expression | | | | Total |
| - | + | ++ | +++ |
| Noncancerous liver tissues | 5 | 30 | 49 | 36 | 106 |
| Cirrhotic liver  Adjacent normal liver | 0  0 | 1  6 | 10  21 | 23  45 | 34  72 |
| HCC tissues | 61 | 22 | 22 | 1 | 106 |
| HCC tissues with cirrhosis  HCC tissues without cirrhosis | 2833 | 1210 | 9  13 | 1  0 | 50  56 |

Noncancerous liver tissues vs HCC tissues Z= -8.684, P<0.001 (Wilcoxon Signed Ranks Test)

HCC tissues vs cirrhotic liver Z= - 5.047, P<0.001 (Wilcoxon Signed Ranks Test)

Adjacent normal liver vs HCC tissues Z= -7.038, P<0.001 (Wilcoxon Signed Ranks Test)

HCC tissues with cirrhosis vs HCC tissues without cirrhosis λ=1.986, P=0.575 (Chi-Square Tests)

Table S2 Clinical characteristics of 106 cases of HCC patients

|  |  |  |
| --- | --- | --- |
| Characteristic | No. of Patients | % |
| Age,y  <55  >=55 | 68  38 | 64.2  35.8 |
| Differentiation  Well  Moderate  Poor | 23  64  19 | 21.7  60.4  17.9 |
| Distant metastasis  Y  N | 69  37 | 65.1  34.9 |
| Dissemination  Y  N | 50  56 | 47.2  52.8 |
| Portalvein thrombosis  N  Y | 90  16 | 84.9  15.1 |
| Relapse  N  Y | 59  47 | 55.7  44.3 |
| Expression of FBXO8  Low  High | 81  25 | 76.4  23.6 |
| Cirrhosis  N  Y | 56  50 | 52.8  47.2 |
| Tumor size  <5cm  >=5cm | 50  56 | 47.2  52.8 |
| Gender  Male  Female | 92  14 | 86.8  13.2 |
| Serum AFP  <25ng/ml  >=25ng/ml | 37  69 | 34.9  65.1 |
| HBsAg  Negative  Positive | 21  85 | 19.8  80.2 |

Table S3 Univariate and multivariate analyses of individual parameters for correlations with overall Survival rate: Cox proportional hazards model.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Variables | Univariate | | P value | Multivariate | | P value |
| HR | CI (95%) | HR | CI (95%) |
| FBXO8 | 0.223 | 0.084-0.649 | 0.005 | 0.319 | 0.109-0.939 | 0.038 |
| Age | 1.022 | 0.566-1.847 | 0.942 |  |  |  |
| Gender | 2.459 | 0.764-7.915 | 0.132 |  |  |  |
| Portal vein thrombosis | 0.247 | 0.129-0.470 | <0.001 | 0.297 | 0.134-0.657 | 0.003 |
| Differentiation | 0.464 | 0.297-0.724 | 0.001 | 0.383 | 0.213-0.689 | 0.001 |
| Cirrhosis | 1.157 | 0.656-2.039 | 0.614 |  |  |  |
| Tumor size | 1.319 | 0.745-2.334 | 0.342 |  |  |  |
| Distant metastasis | 0.432 | 0.244-0.762 | 0.004 |  |  |  |
| Dissemination | 0.320 | 0.169-0.607 | <0.001 | 0.204 | 0.09-0.462 | <0.001 |
| Relapse | 2.065 | 1.162-3.671 | 0.014 |  |  |  |
| HBsAg status | 0.606 | 0.315-1.166 | 0.134 |  |  |  |
| Serum AFP | 0.824 | 0.462-1.471 | 0.513 |  |  |  |

Abbreviations: HR, Hazard radio; CI, Confidence interval.

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