**Supplementary Data**

Supplementary Table 1: Protein Quantitation results for AFP and PIWIL2 by ELISA:

|  |  |  |  |
| --- | --- | --- | --- |
| **Marker** | **Control**  **N=10** | **HCC**  **N=15** | ***P. value*** |
| **AFP ng/ml** | 0.65(0.35- 1.43) | 3.81(0.96- 4.84) | ***p<0.001\*\**** |
| **PIWIL2 ng/ml** | 2.74(1.95- 3.89) | 6.01(3.84- 8.64) | ***p<0.001\*\**** |

Chart, box and whisker chart

Description automatically generatedChart, box and whisker chart

Description automatically generated

Supplementary figure 1: Measurement of Expression via ELISA for serum samples of HCC patients (n=15) and Healthy controls (n=10), in AFP (Left) PIWIL2, (right)

A picture containing outdoor

Description automatically generatedA picture containing outdoor

Description automatically generated

Supplementary figure 2: Immunohistochemistry (IHC) Microscopic imaging of sections in liver for chronic Hepatitis C virus tissue (Left) with weak positive staining of hepatocytes for **PIWIL2** in cirrhotic nodules and diffuse positive staining HCC tissue (Right) (Light Microscope 400X magnification).