

Table S1: Comparisons of patient characteristics, diagnostic features, treatment, and outcomes of HBV-associated HCC diseases

| | All patients(n=300) | Anti-HDV Negative (n=292) | Anti-HDV positive (n=8) |
|---|----------------------------|----------------------------|----------------------------|
| Male, <i>n</i> (%) | 259(86.3) | 252(86.3) | 7(87.5) |
| Age, years | 57(18-90) | 56.8(18-90) | 63.1(55-79) |
| AFP | 4,780(1.52-342,193) | 4,912(1.52-342,193) | 111.4(3-393.5) |
| tumor size | 4.921(0.8-30) | 4.926(0.8-30) | 4.725(1.5-9) |
| Albumin | 4.226(2.6-5.3) | 4.23(2.6-5.3) | 3.36(3.4-4.56) |
| ALT(U/L) | 35.8(9-154) | 35.993(9-30) | 30.875(9-49) |
| Bilirubin(mg/dl) | 0.773(0.2-3) | 0.781(0.2-0.7) | 0.475(0.2-1) |
| HBV DNA($\times 10^6$ IU /ml) | 0.000389(0.000007-0.00199) | 0.000389(0.000007-0.00199) | 0.000196(0.000009-0.00182) |
| HBeAg(+), <i>n</i> (%) | 9(3) | 9(3) | 0 |
| Smoking history(+), <i>n</i> (%) | 158(52.67) | 152(52.05) | 6(75) |
| Drinking history(+), <i>n</i> (%) | 123(41) | 117(40.07) | 6(75) |
| Cirrhosis(+), <i>n</i> (%) | 115(38.33) | 113(38.7) | 2(25) |
| Metastasis(+), <i>n</i> (%) | 15(5) | 15(5) | 0 |
| HCC type ^a , <i>n</i> (%) | | | |
| 1 | 231(77) | 224(76.7) | 7(87.5) |
| 2 | 69(23) | 68(23.3) | 0 |
| Vascular invasion ^b , <i>n</i> (%) | | | |
| 0 | 146(48.7) | 143(49) | 3(37.5) |
| 1 | 51(17) | 48(16.4) | 0 |
| 2 | 65(21.7) | 65(22.3) | 4(50) |
| 3 | 4(1.3) | 0 | 0 |
| 4 | 21(7) | 21(7.2) | 0 |
| 1,2 | 14(4.7) | 14(4.8) | 0 |
| 1,3 | 1(0.3) | 1(0.3) | 1(12.5) |

| | | | |
|--|-----------|-----------|---------|
| 1,4 | 1(0.3) | 1(0.3) | 0 |
| Pathology stage, <i>n</i> (%) | | | |
| I | 112(37.3) | 110(37.7) | 2(25) |
| II | 117(39) | 113(38.7) | 4(50) |
| IIIA | 22(7.3) | 21(7.2) | 1(12.5) |
| IIIB | 32(10.7) | 31(10.6) | 1(12.5) |
| IIIC | 7(2.3) | 7(2.3) | 0 |
| IVA | 3(1) | 3(1) | 0 |
| IVB | 7(2.3) | 7(2.3) | 0 |
| Treatment before surgery ^c , <i>n</i> (%) | | | |
| 0 | 260(86.7) | 252(86.3) | 0 |
| 1 | 16(5.3) | 16(5.5) | 0 |
| 2 | 12(4) | 12(4.1) | 0 |
| 3 | 6(2) | 6(2.1) | 0 |
| 4 | 2(0.7) | 2(0.7) | 0 |
| 5 | 2(0.7) | 2(0.7) | 0 |
| 6 | 1(0.3) | 1(0.3) | 0 |
| 7 | 1(0.3) | 1(0.3) | 0 |
| HDV Genotype | | | |
| HDV-2, <i>n</i> | 1 | 0 | 1 |
| HDV-4, <i>n</i> | 2 | 0 | 2 |
| HDV-2/HDV-4, <i>n</i> | 2 | 0 | 2 |
| ND ^d , <i>n</i> | 3 | 0 | 3 |

a. HCC type: 1. Solitary; 2. Multiple

b. Vascular invasion: 0. Absent ; 1. capsular vein invasion; 2. portal vein tumor thrombosis (micro); 3. portal vein tumor thrombosis (grossly); 4. portal vein tumor thrombosis (gross and micro)

- c. Treatment before surgery "no"=0 "TAE/TACE"=1 "Surgical"=2 "RFA"=3 "TAE/TACE,RFA"=4 "chemotherapy"=5 "TAE/TACE,RFA,cryotherapy"=6 "TAE/TACE,PEI/Alcohol injection"=7 "missing data"
- d. ND: HDV RNA undetectable

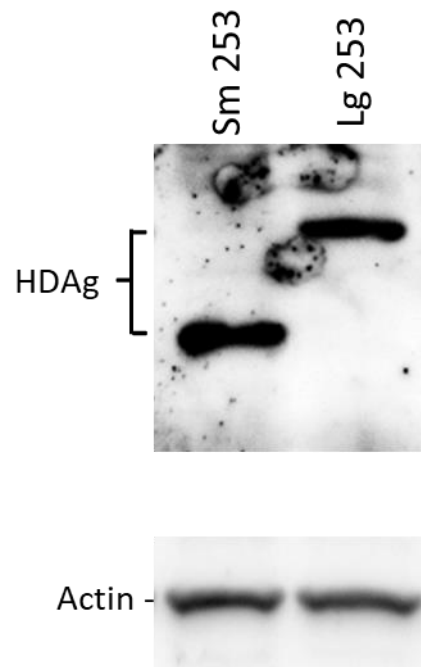


Figure S1. Illustration of the efficiencies of HDAg overexpression in Huh7 cells, as determined by analyzing HDAg protein expression via WB. Sm 253 and Lg 253 denote S-HDAg and L-HDAg, respectively, derived from the serum sample of HCC 253.