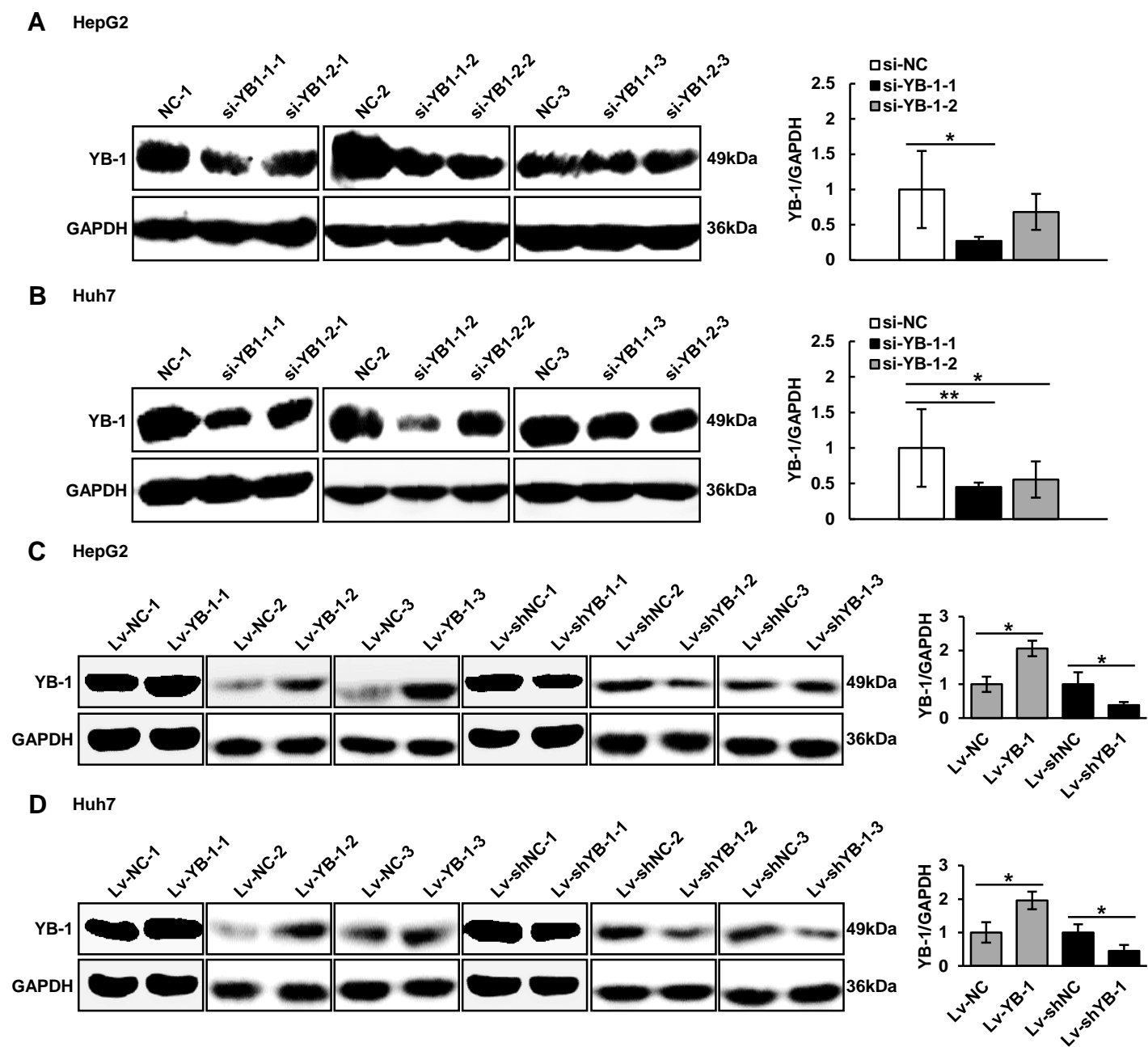
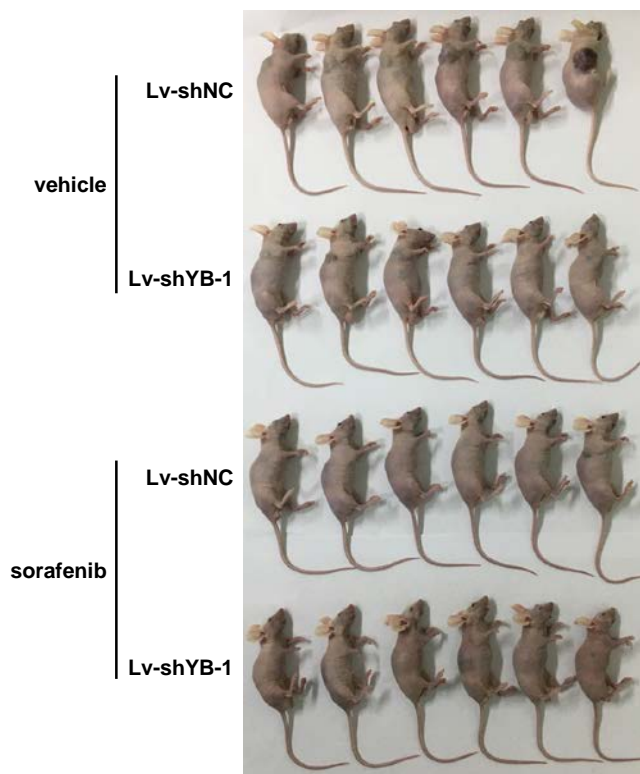


Supplementary Fig. S1 Induction of sorafenib resistance by YB-1 in hepatocarcinoma cell lines. (A) The IC₅₀ values of sorafenib were detected by CCK-8 assays in four HCC cell lines. (B) Western blot analysis showed the levels of YB-1 in four HCC cell lines after sorafenib treatment. * $P < 0.05$ vs. the indicated groups.



Supplementary Fig. S2 Transfection efficiency of YB-1 siRNA and lentivirus. Western blot analysis showed the transfection efficiency of si-YB1-1 and si-YB1-2 in HepG2 (A) and Huh7 (B) cells. The transfection efficiency of Lv-YB-1 and Lv-shYB-1 was detected by Western blot analysis in HepG2 (C) and Huh7 (D) cells. * $P < 0.05$, ** $P < 0.01$ vs. the indicated groups.



Supplementary Fig. S3 Knockdown of YB-1 strengthens sorafenib efficiency in vivo.

Morphologies of tumors in subcutaneous Huh7 xenografts in nude mice.

Supplementary Table S1 The sequences of lentivirus with YB-1 overexpressing or knockdown

| Name of the Lentivirus | Species | Name of the carrier | Corp. | cDNA sequence |
|------------------------------|---------|---------------------------|--|--|
| Lv-NC | human | LV5 | Shanghai GenePharma Co. Ltd, Shanghai, China | none |
| Lv-YB-1 | human | LV5 | Shanghai GenePharma Co. Ltd, Shanghai, China | atgagcagcgaggccgagaccagca gccgcccgcgcccccccgccgccc cgccctcagcgccgcccacaccaagcc cggcactacgggcagcggcgagggg agcgggtggcccggcggcctcacatc ggcggcgccctgccggcggggacaag aagggtcatcgcaacgaaggtttggga acagtaaaatggttcaatgtaaggaaac ggatatggtttcatcaacaggaatgac accaaggaagatgtattgtacaccag actgccataaagaagaataaccccagg aagtaccttcgcagtgtaggagatgga gagactgtggagtttgatgtgtgaag gagaaaagggtgcggaggcagcaaa tgttacaggctcctggtggtgtccagttc aaggcagtaaataatgcagcagaccgt aaccattatagacgctatccacgtcgta ggggctcctccacgcaattaccagcaaa attaccagaatagtgagagtggggaa |

| | | | | |
|-----------|-------|------|--|--|
| | | | | aagaacgagggatcggagagtgtcc cgaaggccaggccaacaacgccggc cctaccgcaggcgaaggtccacctta ctacatgcggagacctatgggcgtcg accacagtattccaacctcctgtgcag ggagaagtgatggagggtgctgaaa ccagggtgcaggagaacaaggtaga ccagtgaggcagaatatgtatcgggg atatagaccacgattccgcagggggccc tcctcgccaaagacagcctagagagg acggcaatgaagaagataaagaaaat caaggagatgagaccaaggtcagca gccacctcaacgtcgtaccgccgcaa cttcaattaccgacgcagacgcccaga aaacctaaaccacaagatggcaaag agacaaaagcagccgatccaccagct gagaattcgtccgctcccagggtgag cagggcggggctgagtaa |
| Lv-shNC | human | LV16 | Shanghai GenePharma Co. Ltd, Shanghai, China | TTCTCCGAACGTGTCACG T |
| Lv-shYB-1 | human | LV16 | Shanghai GenePharma Co. Ltd, Shanghai, China | CCACGCAATTACCAGCA AA |

Lv: lentivirus; NC: negative control; sh: short hairpin; YB-1: Y-box binding

protein 1.

Supplementary Table S2 The sequences of the YB-1 siRNA

| Name of the siRNA | Species | Corp. | sequence |
|-------------------------|---------|--|---------------------------|
| NC | human | Shanghai GenePharma Co. Ltd, Shanghai, China | UUCUCCGAACGUGUCACG UTT |
| si-YB1-1 | human | Shanghai GenePharma Co. Ltd, Shanghai, China | CCACGCAAUUACCAGCAA ATT |
| si-YB1-2 | human | Shanghai GenePharma Co. Ltd, Shanghai, China | AGAAGGUCAUCGCAACGA ATT |

NC: negative control; si: small interfering; YB-1: Y-box binding protein 1.