RFWD3 gene expression was analyzed by IHC and qRT-PCR analysis in HCC and adjacent tissues. The lentivirus was used to silencing the expression of RFWD3 to obtain the stably transfected cells in the HCC cell lines BEL-7404 and HCC-LM3. After checking silence efficiency, transfected cells were implanted subcutaneously and tail vein injection in nude mice to observe tumor growth and metastasis.

Before the operation, all patients had been informed of the resection tissues may use of research and got agreed of the patients. All animal experimental protocols were conducted in accordance with the ARRIVE guidelines (http://www.nc3rs.org.uk/arrive-guidelines).