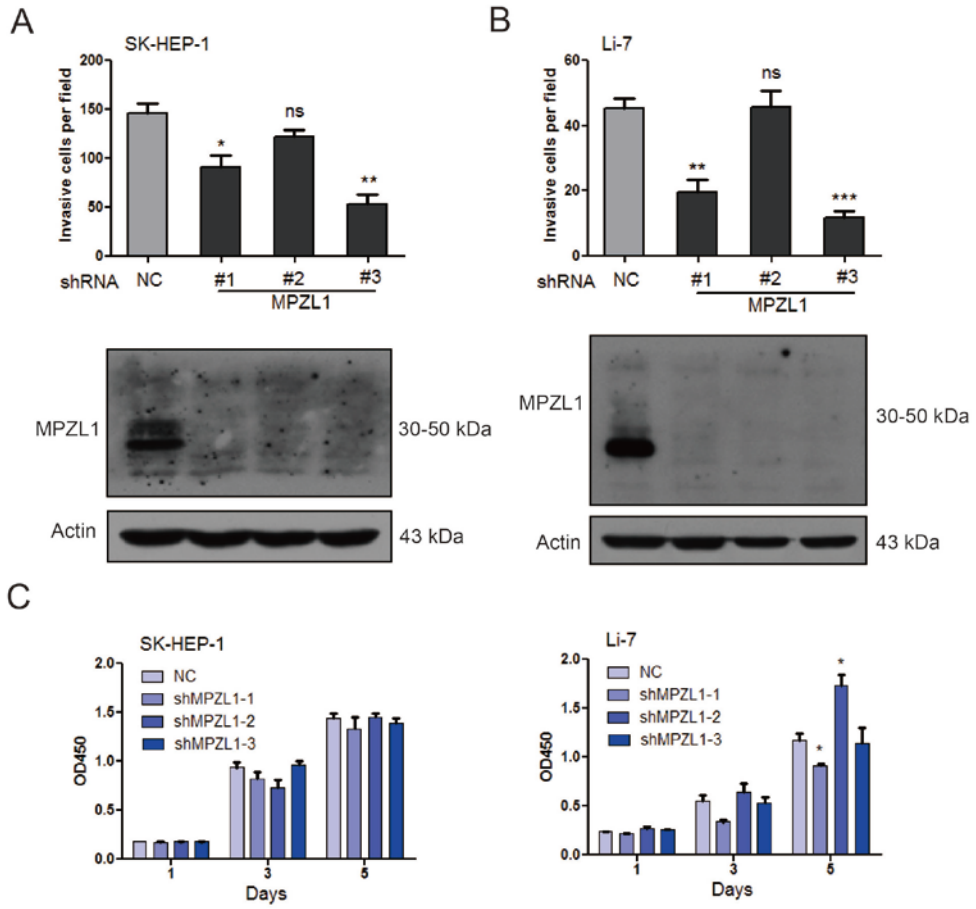

Supplementary information, Figure S4 Knockdown of the *MPZL1* gene inhibited HCC cell migration, but not cell proliferation. (**A, B)** The effects of the MPZL1 gene on the invasive abilities of SK-HEP-1 and Li-7 cells by Trans-well migration assays. All the results are shown as the mean ± s.e.m. **P* < 0.05; ***P* < 0.01; ****P* < 0.001. The detection of the shRNA-mediated knockdown of the *MPZL1* gene in SK-HEP-1 and Li-7 cells by immunoblotting. **(C)** Representative result of CCK-8 assays for the effects of *MPZL1* gene on the *in vitro* proliferation of SK-HEP-1 and Li-7 cells by lentivirus-mediated knockdown. The results are shown as the mean ± s.e.m. **P* < 0.05.

In the current study, we have employed three shRNAs to knockdown the *MPZL1* gene.

The knockdown efficiency of each shRNA was examined by immnuoblotting. The results showed that all of the three shRNAs can significantly knockdown the *MPZL1* gene. However, only two shRNAs (shMPZL1-1 and shMPZL1-3) can effectively inhibit the migratory ability of HCC cells. Moreover, we found that the shRNA-MPZL1-3 was the most effective in suppressing cell invasion. In addition, knockdown of *MPZL1* gene by the shRNA-MPZL1-3 has no significant effect on HCC cell proliferation. Therefore, the shRNA-MPZL1-3 was further used in the next study.