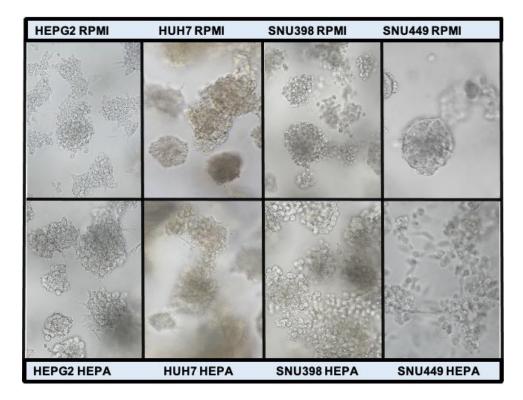
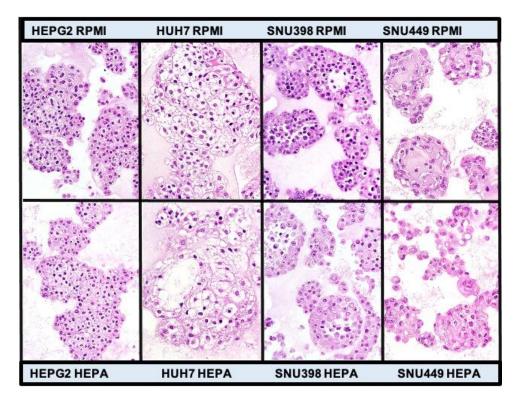
SUPPLEMENTARY DATA

Antibody Name	Firm name and Catalog Number	Dilution for IHC
CK18	Epitomics (EP30)	1/100
CK19	CELL MARQUE (A52-B/A2.26)	ready to use
CK7	VENTANA (SP52)	ready to use
AFP	CELL MARQUE (POLYCLONAL)	1/100
HepPar1	CELL MARQUE (OCH1E5)	ready to use
A1AT	DAKO (AAT)	1/30
Beta-catenin	CELL MARQUE (I4)	ready to use
Arginase	CELL MARQUE (SP156)	ready to use
CD44	VENTANA (SP37)	ready to use
E-cadherin	VENTANA (36)	ready to use
Vimentin	VENTANA (V9)	ready to use
Ki-67	DAKO (MIB-1)	1/100
Glutamine synthetase	CELL MARQUE (G5-6)	1/200

Supplementary Table. List of antibodies used for immunocytochemistry



Supplementary Figure 1. The comparison BFM images of 3D organoid-like structures of Hep3B, Huh7, SNU398 and SNU449 cell lines cultured with RPMI (top) and Hepatocyte Medium (bottom).



Supplementary Figure 2: The comparison H&E images of 3D organoid-like structures of Hep3B, Huh7, SNU398 and SNU449 cell lines cultured with RPMI (top) and Hepatocyte Medium (bottom).