

Table 2. The up-regulated DEGs sharing from cirrhosis to metastasis sorted out by the following GO function.

Gene symbol	Gene name	GO
CTGF	connective tissue growth factor	1-6
TNFRSF12A	tumor necrosis factor receptor superfamily, member 12a	1-5
PDGFRB	platelet derived growth factor receptor, beta polypeptide	1,5
RHOB	ras homolog gene family, member B	1-3
THBS1	Thrombospondin 1	1,3,6
RTN4	reticulon 4	1-3
ANXA2	annexin A2	1,6
ARHGAP24	Rho GTPase activating protein 24	1
APP	amyloid beta (A4) precursor protein	2,3,5,6
CD44	CD44 antigen	2,3,5,6
COL1A1	procollagen, type 1, alpha 1	2,3,5,6
EDNRB	endothelin receptor type B	2-6
GJA1	gap junction membrane channel protein alpha 1	2-5
LAMC1	laminin, gamma 1	3,5,6
PPP2CA	protein phosphatase 2 (formerly 2A), catalytic subunit, alpha isoform	2,3,5
SPP1	secreted phosphoprotein 1	2,3,5,6
LOC500040	similar to Testis derived transcript	3-5
FATH	fat tumor suppressor homolog	3,5

GPNMB	glycoprotein (transmembrane) nmb	3,5
CCNA2	cyclin A2	3,5
CD36	cd36 antigen	3
CD24	CD24 antigen	3
CXADR	coxsackie virus and adenovirus receptor	3
DDR1	discoidin domain receptor family, member 1	3
DCN	decorin	3,6
DPYSL2	dihydropyrimidinase-like 2	3
ENPP1	ectonucleotide pyrophosphatase/phosphodiesterase 1	3
EPDR2	ependymin related protein 2 (zebrafish)	3
LGALS2	lectin, galactoside-binding, soluble 2	3
SPINT1	serine peptidase inhibitor, Kunitz type 1	3
TACSTD1	tumor-associated calcium signal transducer 1	3
TM4SF3	transmembrane 4 superfamily member 3	3
TMSB10	thymosin, beta 10	3
ITGA6	integrin, alpha 6	2,3
SDCBP	syndecan binding protein	3,4
TNS	tensin	3,4
CFL1	cofilin 1, non-muscle	2,4
MGP	matrix Gla protein	3,6
NID1	Nidogen 1	3,6
VIL2	villin 2	3

TSPAN3	tetraspanin 3	3,5
IGFBP3	insulin-like growth factor binding protein 3	2,5
EGR1	early growth response 1	2,5
EGLN3	EGL nine homolog 3 (C. elegans)	2,5
GAS6	growth arrest specific 6	2,5
MYC	myelocytomatosis viral oncogene homolog (avian)	2,5
MTAP2	microtubule-associated protein 2	2,5
NME1	expressed in non-metastatic cells 1	2,5
ANXA5	annexin A5	2
BZRP	benzodiazepine receptor, peripheral	2
CD74	CD74 antigen	2,5
BEX1	brain expressed X-linked 1	2,5
TRIB3	tribbles homolog 3 (Drosophila)	2
CRYAB	crystallin, alpha B	2
LITAF	LPS-induced TN factor	2
DDIT4	DNA-damage-inducible transcript 4	2
FCGR3	Fc receptor, IgG, low affinity III	2
G6PDX	glucose-6-phosphate dehydrogenase X-linked	2
GCLC	glutamate-cysteine ligase, catalytic subunit	2
GGT1	gamma-glutamyltransferase 1	2
HSPCB	heat shock 90kDa protein 1, beta	2
ABCB1A	ATP-binding cassette, sub-family B (MDR/TAP), member 1A	2

AKR1B4	aldo-keto reductase family 1, member B4	2
AQP1	aquaporin 1	2
BTG2	B-cell translocation gene 2, anti-proliferative	2
NQO1	NAD(P)H dehydrogenase, quinone 1	2
NEK6	NIMA (never in mitosis gene a)-related expressed kinase 6	2
NGFRAP1	nerve growth factor receptor (TNFRSF16) associated protein 1	2
NOL3	nucleolar protein 3 (apoptosis repressor with CARD domain)	2
YWHAQ	tyrosine 3-monooxygenase	2
PRNP	prion protein	2
SLC25A4	solute carrier family 25	2
TFRC	transferrin receptor	2
VIM	vimentin	2
TUBA1	tubulin, alpha 1	2,5
LGALS3	lectin, galactose binding, soluble 3	2,6
IGFBP7	insulin-like growth factor binding protein 7	5
CCND1	cyclin D1	5
S100A6	S100 calcium binding protein A6	5
SPARC	secreted acidic cysteine rich glycoprotein	5,6
DMBT1	deleted in malignant brain tumors 1	5,6
HSPCA	heat shock protein 1, alpha	5
EMP1	epithelial membrane protein 1	5
DAB2	disabled homolog 2 (Drosophila)	5

ANXA1	annexin A1	5
ANXA7	annexin A7	5
ATPIF1	ATPase inhibitory factor 1	5
S100A11	S100 calcium binding protein A11	5
CD276	CD276 antigen	5
TAX1BP3	Tax1 (human T-cell leukemia virus type I) binding protein 3	5
TXNRD1	thioredoxin reductase 1	5
NPDC1	neural proliferation, differentiation and control, 1	5
PKIB	protein kinase inhibitor beta, cAMP dependent, catalytic	5
COL1A2	procollagen, type I, alpha 2	6
COL3A1	procollagen, type III, alpha 1	6
COL4A1	procollagen, type IV, alpha 1	6
COL5A2	procollagen, type V, alpha 2	6
ACP5	acid phosphatase 5, tartrate resistant	6
LTBP1	latent transforming growth factor beta binding protein 1	6
DEFB1	defensin beta 1	6

NOTE: The numbers from 1-6 indicate GO terms: angiogenesis, apoptosis, cell adhesion, cell migration, cell proliferation and extracellular matrix, respectively.