| HCV | SenV |
|-----|-----|
| Enter MAM | Leave MAM | Enter MAM | Leave MAM |
| A2M | ABCB1 | ABCC1 | AAS5 |
| AARS | ABCB6 | ABCD3 | ABCE1 |
| ABCE1 | ABCD3 | ACADVL | ACTR2 |
| ACBD5 | ABHD10 | ACAT1 | AKAP2 |
| ACSL1 | ACA2 | ACO2 | ALPP |
| ACSL4 | ACAD9 | ACOX1 | ANLN |
| ACTN1 | ACADM | ACSL3 | AP2A1 |
| ACTN4 | ACADSB | ADAM9 | AP2B1 |
| ADD1 | ACADVL | AGPS | APEX1 |
| ADFP | ACO2 | AGR2 | APOBEC3B |
| AGT | ADAM9 | AGTRAP | ARHGAP17 |
| ALDH1A1 | ADAR | ALDH1B1 | ATAD3C |
| APEX1 | AFG3L2 | ALDH1B1 | ATP2B4 |
| ARF6 | AFP | ALG1 | ATP6AP1 |
| ARHGAP5 | AGK | ANPEP | BAIAP2 |
| ASAH1 | AGMAT | ANXA1 | BAZ1A |
| ATP2B4 | AGRN | ANXA4 | BAZ1B |
| ATXN2 | AHSG | ANXA6 | BUD31 |
| BAIAP2L1 | AIFM1 | APOL2 | C2orf20 |
| BCAM | AK2 | ARF6 | C8orf55 |
| BIN1 | AK3L1 | ATP1A1 | CHD4 |
| CALD1 | ALDH16A1 | ATP1B1 | CHD7 |
| CALU | ALDH18A1 | ATP2B1 | CHST12 |
| CAP1 | ALDH1B1 | ATP6V1B | CKAP5 |
| CAT | ALDH2 | 1 | CSNK1A1 |
| CD38 | ALDH4A1 | B4GALT5 | CSR1P1 |
| CDC42EP4 | AMFR | BST2 | CSTF3 |
| CDK5RAP3 | AMT | C11orf59 | CUX1 |
| CEACAM1 | ANPEP | C14orf15 | DDX21 |
| CFL1 | APP | 6 | DEK |
| CHD4 | ATAD3A | C1Q8P | DHR57B |
| CKAP5 | ATP1A1 | C3orf21 | DNAJB12 |
| COBLL1 | ATP2A2 | C4B | DNAJC3 |
| COL18A1 | ATP5A1 | CAT | DNMT1 |
| CORO1B | ATP5B | CD109 | DOCK5 |
| CPVL | ATP5D | CD276 | DPY30 |
| CRELD1 | ATP5F1 | CDCP1 | DYNC1H1 |
| CRELD2 | ATP5H | CHD1 | DYNC1J2 |
| CSR1P1 | ATP5J | CKAP4 | DYNC1L2 |
| CTNNAL1 | ATP5L | CLPTM1L | DYNLT1 |
| CTSB | ATP5O | | EDF1 |
| HCV Enter MAM | Leave MAM | SenV Enter MAM | Leave MAM |
|---------------|-----------|----------------|-----------|
| CYP51A1       | ATP6V0A1  | CNP            | EEF1A1    |
| DGAT1         | B3GNT1    | CORO1A         | EEF1B2    |
| DMD           | B4GALT1   | COX5A          | EEF1D     |
| DNAJC1        | BCL2L13   | COX7A2         | EEF1G     |
| DNAJC2        | C14orf156 | CPNE2          | EIF3F     |
| DNM2          | C1QB8P    | CPNE3          | EIF4A3    |
| DPM1          | C5orf33   | CPT1A          | ELAVL1    |
| DPP3          | CANX      | CTSD           | EPN2      |
| DTNA          | CCDC109A  | CYBRD1         | ERC6L     |
| DYNC1H1       | CCPG1     | DAD1           | EXOC2     |
| DYNC1I2       | CDH2      | DAP3           | EXOC3     |
| DYNC1LI1      | CHST13    | DCBLD2         | EZR       |
| DYNC1LI2      | CLDN1     | DDOST          | FAM8A2    |
| DYNTL1        | CLGN      | DNAJB11        | FBL       |
| EEF1A1        | COL5A2    | DNAJC9         | FLOT1     |
| EEF1B2        | COX5A     | DPM1           | FUBP1     |
| EEF1D         | COX6B1    | DSG2           | FUBP3     |
| EEF1G         | CPD       | DYSF           | G3BP1     |
| EEF2          | CPT2      | ECHS1          | GANAB     |
| EIF5A         | CTAGE5    | EDIL3          | GLYR1     |
| EML4          | CTGF      | EEA1           | GNA12     |
| ENAH          | CYB5R1    | F3             | GN2L1     |
| EPB41         | CYC1      | FAM3C          | GTF2I     |
| EPB41L5       | DAGLB     | FAR1           | GTF3C1    |
| EPCAM         | DAP3      | FH             | H2AFV     |
| EPS8L2        | DDX21     | FKBP8          | H2AFX     |
| ERLIN1        | DHCAR24   | FLNB           | H2AFY     |
| ERLIN2        | DHX30     | FNDC3B         | HIP1      |
| ERO1L         | DHX9      | GBA            | HIST1H2BJ |
| ESD           | DLAT      | GCS1           | HIST1H3C  |
| EZR           | DLD       | GNA13          | HIST1H4H  |
| F2            | DNAJC10   | GNA1           | HIST2H3A  |
| FADS1         | DNAJC11   | GNB2           | HMGA2     |
| FAR1P         | DNAJC13   | GNB4           | HMGAI     |
| FASN          | DSP       | GNG12          | HMG2B     |
| FERMT2        | EBP       | GNPAT          | HMG3B     |
| FGB           | ECE1      | GOLGA5         | HMGN1     |
| FGG           | ECH1      | GPSN2          | HMHA1     |
| FKBP11        | EFTUD2    | GRN            | HNRNPK    |
| GAPDH         | EHHADH    | GRPEL1         | HNRNPMPM  |
| GC            | ELOVL1    | HADHA          | HNRNPU12  |
| HCV | SenV |
|-----|------|
| **Enter MAM** | **Leave MAM** | **Enter MAM** | **Leave MAM** |
| GCN1L1 | ENPP1 | HCCS | HNRPCL |
| GNAI2 | ERMP1 | SRP9 | HSPA14 |
| GNAL | ETFA | HIBADH | IFITM3 |
| GNAQ | ETFB | HLA-B | KANK2 |
| GNAS | FAM38A | HMOX1 | KHSR2 |
| GNB2L1 | FAM62A | HMOX2 | KIAA0415 |
| GOLM1 | FAM82A2 | HS2ST1 | KIF11 |
| GPI | FGFR4 | HSD17B4 | KIF18B |
| H6PD | FLOT1 | HSPA13 | KIF4A |
| HCV-RNA-Pol | FLOT2 | HSPA9 | KTELC1 |
| HDLBP | FLVCR1 | HSPD1 | LGALS3 |
| HMG83 | FN1 | ICAM1 | LIM51 |
| HMGCS1 | FOXRED1 | IER3P1 | LMNA |
| HMHA1 | GALNT2 | IGF2R | LMB1 |
| HN1L | GFM1 | ITGA5 | LOC1001312 |
| HSD17B2 | GJA1 | ITGB4 | 94 |
| HSP90AA1 | GLDC | ITM2C | LOC649330 |
| HSP90AB1 | GLG1 | ITPR1 | LRRC8E |
| HSP90B1 | GLS | JAGN1 | MAP1S |
| HSPA5 | GLTPD2 | JUP | MBD3 |
| HYOU1 | GLUD1 | KIAA0090 | MDC1 |
| IQGAP1 | GOLIM4 | KIAA0776 | MGMT |
| IQGAP2 | GOT2 | KIAA1949 | MKI67 |
| ITIH2 | GPD2 | KIRREL | MPRIP |
| KANK4 | GRHPR | KRTCAP2 | MSH6 |
| KIAA0776 | GRPE1 | LDLR | MSN |
| KIAA1715 | GSTK1 | LGALS3B | MYADM |
| KIF21A | GTF3C1 | P | MYBBP1A |
| KRT1 | H2AFV | LGALS8 | MYH10 |
| KRT10 | H2AFY | LGMN | MYO1C |
| KRT2 | HEATR1 | MKKS | MYO5A |
| LEPRE1 | HINT2 | LOC7279 | MYST2 |
| LMAN1 | HIST1H1B | 47 | NCAPD3 |
| LMO7 | HIST1H1E | LONP1 | NDUFA10 |
| MARCKSL1 | HIST1H2BJ | LRRCS9 | NDUFS8 |
| MEGF9 | HIST1H4H | MDH2 | NHP2L1 |
| MTHFD1 | HIST2H2AA | MEST | NOC2L |
| MTPN | HINT2 | MGAT4B | NOLC1 |
| MYH10 | HM13 | MOXD1 | NUMA1 |
| MYH14 | HMGCL | MPP6 | NUP210 |
| MYO1D | HNF4A | MRC2 | NUP214 |
|          |          |          |          |
|----------|----------|----------|----------|
| **HCV**  | **SenV** | **HCV**  | **SenV** |
| Enter MAM | Leave MAM | Enter MAM | Leave MAM |
| NARS      | HNRNPA0  | MRPL10   | ORC3L    |
| NFXL1     | HNRNPC   | MRPS30   | PARP1    |
| NS3       | HNRNPD   | NAP1L1   | PARVA    |
| PARP1     | HNRNPUL2 | NCAM2    | PCBP2    |
| PDE8A     | HSD17B10 | NDUFS1   | PDIA6    |
| PDIA3     | HSPA9    | NDUFS3   | PDS5A    |
| PDIA4     | HSPD1    | NDUFV2   | PIPSL    |
| PDIA6     | HSPE1    | NFKB2    | PLCB3    |
| PDLIM1    | IARS2    | NRP2     | POFUT1   |
| PDLIM5    | IDH2     | NUP62    | PPAP2C   |
| PDSS5A    | IDH3A    | OAS1     | PPP2R1A  |
| PEFB1     | IDH3B    | OAT      | PRKACA   |
| PECAM1    | IGF2R    | OSBPL8   | PRKDC    |
| PHIP      | IKIP     | P4HA1    | PRP8     |
| PHYH      | IL1RAP   | PARP14   | PSIP1    |
| PLCB1     | IMMT     | PBXIP1   | PSCP1    |
| PLS3      | ISOC2    | PDP1     | PTBP1    |
| PLXND1    | ITGA1    | PECI     | PTRF     |
| PPFIA1    | ITGAV    | PEX11B   | PXDN     |
| PPP1CB    | ITM2B    | PEX14    | RAB10    |
| PRDX1     | KIAA0564 | PGRMC2   | RAB32    |
| PRDX4     | KIAA2013 | PHB2     | RAB5B    |
| PRKAA1    | LACTB    | PI4K2A   | RAD50    |
| PROS1     | LDLR     | PLAUR    | RAI14    |
| QDPR      | LETM1    | PLOD1    | RBM14    |
| RCC2      | LMNA     | PLSCR1   | RBM3     |
| RDX       | LMNB2    | PP1F     | RCC1     |
| RECQL     | LONP1    | PPL      | RCC2     |
| RPL13A    | LPHN2    | PRDX3    | RECQL    |
| RPL26     | LRP1     | PSAP     | RFC1     |
| RPS16     | LRPAP1   | PSEN1    | RFC4     |
| RPS17     | LPRPRC   | PTGFRN   | RFC5     |
| RPS2      | LRRCA8   | PTRH2    | RHOT1    |
| RPS3      | MAN2A1   | PTTG1IP  | RIF1     |
| RPS6KA3   | MAVS     | RAB18    | RPL39    |
| SDF2L1    | MCCC1    | RAB1B    | RPS10    |
| SEC31A    | MCCC2    | RAB3D    | RPS12    |
| SEP11     | MDH2     | RAB5C    | RPS16    |
| SEP7      | ME2      | RHOC     | RSPRY1   |
| SEP9      | MFN1     | RPL10A   | SAFB     |
| SLC27A2   | MFN2     | RPL36    | SCRIB    |
| HCV | SenV |
|-----|-----|
| **Enter MAM** | **Leave MAM** | **Enter MAM** | **Leave MAM** |
| SLC9A3R1 | MGAT1 | S100A10 | SEP9 |
| SMPDL3B | MKI67 | S100A13 | SFPQ |
| SNTB1 | MLEC | SACM1L | SH3BP4 |
| SORD | MMAB | SCARB1 | SLC12A9 |
| SPTAN1 | MRPL1 | SCP2 | SLC19A1 |
| SRGAP2 | MRPL11 | SDC4 | SLC1A4 |
| SRPR | MRPL12 | SEC63 | SLC27A3 |
| STIM1 | MRPL37 | SERPINH1 | SLC39A14 |
| SUMO2 | MRPL41 | SLC12A7 | SMARCA4 |
| TLN1 | MRPL46 | SLC25A1 | SMARCA5 |
| TPM3 | MRPL49 | SLC38A1 | SMARCC2 |
| TPM4 | MRPS27 | SPTLC1 | SMC1A |
| TRAM1 | MRPS31 | SPTLC2 | SMC2 |
| TUBA1C | MTHFD1L | SQORDL | SMC3 |
| UBA1 | MTCH2 | SRPR | SMCHD1 |
| UGCGL1 | MTX1 | STARD3NL | STAG1 |
| UTRN | MTX2 | STOM | STK24 |
| VARS | MYO6 | STT3A | SUMF2 |
| VASP | NCEH1 | SYNGR2 | SUMO2 |
| VAT1 | NDUFA10 | TAP1 | SUPT16H |
| VCL | NDUFA5 | TAP2 | TGFBI |
| VIL1 | NDUFA9 | TAX1BP3 | TGFBI |
| VSNL1 | NDUFB10 | TCIRG1 | TJPA |
| WASF2 | NDUFS1 | TGM6 | TLP1 |
| WDR1 | NDUFS2 | THBS1 | TLN1 |
| ZDHHC5 | NDUFS3 | THEM2 | TMED9 |
| | NDUFV1 | TIMM44 | TMEM41A |
| | NIPSNAP1 | TIMM50 | TOMM40 |
| | NOMO2 | TMED1 | TOP2A |
| | NSDHL | TMED5 | TOR1A |
| | NXF1 | TMED7 | TOR1AIP1 |
| | OAT | TMEM165 | TRIP12 |
| | OGDH | TMEM43 | TRRAP |
| | OPA1 | TNC | TUBG1 |
| | OSBPL3 | TOMM70 | UACA |
| | PC | A | UBTD1 |
| | PCYOX1 | TSPAN14 | UHRF1 |
| | PDHA1 | TUFM | UGC84B |
| | PDPR | TXNDC3 | UTRN |
| | PECR | WASL | VIM |
| | PEX13 | | WAPAL |
| HCV       |          | SenV       |          |
|-----------|----------|------------|----------|
| Enter MAM | Leave MAM| Enter MAM  | Leave MAM|
| PHB       | PHB2     | VAMP3      | WIZ      |
| PHB2      | PICALM   | YARS2      | WWC2     |
| PICALM    | PITRM1   |            | XRCC6    |
| PITRM1    | PKP2     |            | ZMYM3    |
| PKP2      | PLXNB2   |            | ZNF828   |
| PLXNB2    | PMPCB    |            |          |
| PMPCB     | POFUT2   |            |          |
| POFUT2    | POLDIP2  |            |          |
| POLDIP2   | POLRMT   |            |          |
| POLRMT    | PON2     |            |          |
| PON2      | PPA2     |            |          |
| PPA2      | PRDX3    |            |          |
| PRDX3     | PROM1    |            |          |
| PROM1     | PSAP     |            |          |
| PSAP      | PSEN1    |            |          |
| PSEN1     | PSIP1    |            |          |
| PSIP1     | PTCD3    |            |          |
| PTCD3     | PTGES2   |            |          |
| PTGES2    | PTPRF    |            |          |
| PTPRF     | PTTG1IP  |            |          |
| PTTG1IP   | PVRL2    |            |          |
| PVRL2     | PYCR2    |            |          |
| PYCR2     | QSOX2    |            |          |
| QSOX2     | RAB1B    |            |          |
| RAB1B     | RAB6C    |            |          |
| RAB6C     | RDH13    |            |          |
| RDH13     | RETSAT   |            |          |
| RETSAT    | RG9MTD1  |            |          |
| RG9MTD1   | RHOT2    |            |          |
| RHOT2     | RPN1     |            |          |
| RPN1      | RPN2     |            |          |
| RPN2      | SACM1L   |            |          |
| SACM1L    | SARS2    |            |          |
| SARS2     | SCAMP2   |            |          |
| SCAMP2    | SCAMP3   |            |          |
| SCAMP3    | SDF4     |            |          |
| SDF4      | SDHA     |            |          |
| SDHA      | SEC11A   |            |          |
| SEC11A    | SEC62    |            |          |
| SEC62     | SERINC1  |            |          |
| HCV | SenV |
|-----|------|
| **Enter MAM** | **Leave MAM** | **Enter MAM** | **Leave MAM** |
| SFXN1 | | |
| SHMT2 | | |
| SLC1A5 | | |
| SLC25A1 | | |
| SLC25A11 | | |
| SLC25A13 | | |
| SLC25A24 | | |
| SLC25A5 | | |
| SLC35B2 | | |
| SLC38A2 | | |
| SLC4A11 | | |
| SLC4A7 | | |
| SMARCC1 | | |
| SMARCC2 | | |
| SMARCD2 | | |
| SMPD4 | | |
| SOD2 | | |
| SPTLC1 | | |
| SQRDL | | |
| ST6GAL1 | | |
| STOML2 | | |
| STX12 | | |
| SURF4 | | |
| TBL2 | | |
| TBRG4 | | |
| TFAM | | |
| TFRC | | |
| TJP1 | | |
| TM9SF1 | | |
| TM9SF4 | | |
| TMED10 | | |
| TMEM111 | | |
| TMEM126 | | |
| A | | |
| TMEM176 | | |
| B | | |
| TMEM43 | | |
| TOMM40 | | |
| TOMM70A | | |
| TOP2A | | |
| TOP2B | | |
|        | HCV | SenV |
|--------|-----|------|
| **Enter MAM** | **Leave MAM** | **Enter MAM** | **Leave MAM** |
| TRAP1  |     |      |      |      |
| TSFM   |     |      |      |      |
| TSPAN13|     |      |      |      |
| TST    |     |      |      |      |
| TUFM   |     |      |      |      |
| UQCRB  |     |      |      |      |
| UQCRC1 |     |      |      |      |
| UQCRC2 |     |      |      |      |
| VDAC1  |     |      |      |      |
| VDAC2  |     |      |      |      |
| VDAC3  |     |      |      |      |
| WFS1   |     |      |      |      |
| XPNPEP3|     |      |      |      |
| YME1L1 |     |      |      |      |