

Table S7 – Univocal first quartile EV-miRNA targets

ABCA1  
ABCB1  
ABCB9  
ABCC1  
ABCG2  
ABHD17C  
ABL1  
ABL2  
ABRACL  
ABTB1  
ACTB  
ACTG1  
ACVR1  
ACVR1B  
ACVR1C  
ACVR2A  
ADAM12  
ADAM17  
ADAM1A  
ADAMTS6  
ADAMTS9  
ADAR  
ADD3  
ADGRA2  
ADORA2A  
AGO1  
AGO2  
AGPAT2  
AHR  
AHRR  
AIFM3  
AKR1B10  
AKR1C2  
AKT1

AKT2  
AKT3  
ALCAM  
ALDH3A1  
ALDH5A1  
ALOX5  
ALPK2  
ALPPL2  
ANAPC1  
ANG  
ANGPT2  
ANKH  
ANKRD46  
ANP32A  
ANXA1  
AP1G1  
APAF1  
APC  
APH1A  
APLN  
APOE  
APP  
AQP1  
AQP4  
AR  
ARF1  
ARF4  
ARF6  
ARHGAP12  
ARHGAP19  
ARHGAP32  
ARHGDIA  
ARHGEF3  
ARID1A  
ARID3A  
ARID3B

ARID4B  
ARIH2  
ARL2  
ARL6IP5  
ARNT  
ARPC5  
ARPP19  
ASF1B  
ASZ1  
ATF4  
ATG12  
ATG14  
ATG16L1  
ATG4A  
ATG7  
ATG9A  
ATM  
ATXN1  
AURKB  
AXIN2  
BACE1  
BAG1  
BAK1  
BAMBI  
BANP  
BAP1  
BASP1  
BAX  
BBC3  
BCAR1  
BCL10  
BCL11A  
BCL2  
BCL2L11  
BCL2L2  
BCL3

BCL6  
BCL7A  
BCL9  
BDNF  
BECN1  
BIRC5  
BIRC6  
BLCAP  
BMF  
BMI1  
BMP2  
BMP7  
BMPR1B  
BMPR2  
BNIP2  
BNIP3  
BNIP3L  
BRAF  
BRAP  
BRCA1  
BRCA2  
BTG2  
BTK  
C11orf65  
C1QTNF9  
CACNA1C  
CADM1  
CALCR  
CAMK1D  
CAMK2D  
CAPNS1  
CAPRIN1  
CARD10  
CASC2  
CASP3  
CASP7

CASP8  
CASP8AP2  
CASR  
CAT  
CAV2  
CBFB  
CBX4  
CCDC43  
CCKBR  
CCL1  
CCL20  
CCL5  
CCL8  
CCNA1  
CCNA2  
CCNB1  
CCND1  
CCND2  
CCND3  
CCNE1  
CCNE2  
CCNJ  
CCNT2  
CCR1  
CD151  
CD274  
CD276  
CD28  
CD40  
CD44  
CD46  
CD69  
CD82  
CD93  
CDC25A  
CDC34

CDC42  
CDC7  
CDH1  
CDH2  
CDH5  
CDK1  
CDK2  
CDK2AP1  
CDK4  
CDK6  
CDK7  
CDK9  
CDKN1A  
CDKN1B  
CDKN1C  
CDKN2A  
CDKN2D  
CDS2  
CDX2  
CEACAM6  
CEBPA  
CEBPB  
CEP19  
CERS2  
CFTR  
CGN  
CHEK1  
CHUK  
CKB  
CLDN1  
CLDN2  
CLINT1  
CLOCK  
CLTC  
CLU  
CNOT6

COL10A1  
COL15A1  
COL1A1  
COL1A2  
COL21A1  
COL3A1  
COL4A1  
COL4A2  
COL5A1  
COL5A2  
COL7A1  
COPS5  
CORO1A  
COX2  
CPD  
CPEB1  
CPEB2  
CPEB3  
CPEB4  
CREB5  
CREBZF  
CREG1  
CRIM1  
CRK  
CRKL  
CRNDE  
CSF1  
CSNK2A1  
CTBP2  
CTCF  
CTDSP2  
CTDSPL  
CTGF  
CTHRC1  
CTNNB1  
CTNND1

CUL2  
CUL5  
CXCL12  
CXCL8  
CYP11B2  
CYP19A1  
CYP24A1  
CYP2C19  
CYP2J2  
CYP7B1  
CYR61  
CYTOR  
DACT3  
DAPK3  
DAXX  
DDAH1  
DDC  
DDIT4  
DDX17  
DDX6  
DEDD  
DERL1  
DFFA  
DGAT1  
DHFR  
DHFRP1  
DICER1  
DIT1  
DIRAS3  
DKK1  
DKK2  
DKK3  
DLL4  
DMD  
DNAJA4  
DNAJC27



DND1  
DNM1L  
DNMT1  
DNMT3A  
DNMT3B  
DOCK1  
DOCK4  
DOCK5  
DOCK7  
DRAM2  
DRD1  
DTD1  
DUSP10  
DUSP2  
DUSP6  
DVL2  
DYRK2  
E2F1  
E2F2  
E2F3  
EED  
EFNA3  
EGFR  
EGLN1  
EGLN3  
EGR1  
EGR2  
EHD2  
EID1  
EIF2S1  
EIF2S3  
EIF3J  
EIF4A2  
EIF4E  
EIF4EBP1  
EIF5A2

ELF2  
ELN  
EMSY  
ENPEP  
EP300  
EPAS1  
EPO  
EPOR  
ERBB2  
ERBB3  
ERCC1  
ERG  
ESR1  
ESR2  
ESRRG  
ETS1  
ETV1  
EZH2  
F11R  
FAF1  
FAM160B2  
FAM3C  
FAM45A  
FAS  
FASLG  
FASN  
FASTK  
FBN1  
FBXO11  
FBXO31  
FBXW7  
FEN1  
FERMT2  
FES  
FGA  
FGB

FGF11  
FGF2  
FGFR1  
FGFR2  
FGFR3  
FGFRL1  
FGG  
FH  
FIS1  
FKBP5  
FLI1  
FLT1  
FMOD  
FMR1  
FOS  
FOSL1  
FOXA2  
FOXC1  
FOXJ2  
FOXM1  
FOXN3  
FOXO1  
FOXO3  
FOXP3  
FRAT1  
FRAT2  
FSCN1  
FSTL1  
FURIN  
FUT4  
FXN  
FZD3  
FZD4  
FZD5  
FZD6  
FZD7

GAB1  
GAB2  
GALNT7  
GAPDH  
GAS5  
GATA3  
GCM1  
GDF5  
GEMIN4  
GJA1  
GLI1  
GLS2  
GLUL  
GMFB  
GNA13  
GNAI1  
GNAI2  
GNAI3  
GOLM1  
GPD1L  
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GPR85  
GRB10  
GRB2  
GRIN2A  
GSK3B  
GSR  
GSS  
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HDAC11  
HDAC2  
HDAC4  
HDGF  
HECTD2

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HIF1A  
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HK2  
HLA-G  
HLTF  
HMGA1  
HMGA2  
HMGB1  
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HMOX1  
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HNRNPK  
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HOXB5  
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HRAS  
HSD17B1  
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ICAM2  
ICOSLG  
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IDH1  
IER2  
IFNAR1

IFNB1  
IFNG  
IFNR  
IGF1  
IGF1R  
IGF2  
IGF2BP1  
IGF2BP2  
IGFBP1  
IGFBP3  
IKBK  
IKZF1  
IKZF2  
IKZF3  
IKZF4  
IL10  
IL11  
IL12A  
IL12B  
IL1A  
IL1B  
IL25  
IL4  
IL6R  
ILK  
IMPDH1  
ING4  
ING5  
INPP5A  
INSIG1  
IRAK1  
IRAK4  
IRF2  
IRF4  
IRS1  
IRS2

ISCU  
ITGA11  
ITGA3  
ITGA5  
ITGA6  
ITGB1  
ITGB3  
ITGB8  
ITIH5  
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JAG1  
JAK1  
JAK2  
JAZF1  
JMY  
JPH2  
JPT1  
KAT2B  
KCMF1  
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KDM5C  
KDR  
KEAP1  
KIF26B  
KIT  
KITLG  
KLC2  
KLF13  
KLF2  
KLF4  
KLF5  
KLHL11  
KRAS  
KREMEN1  
KREMEN2  
LACTB

LAMC1  
LAMC2  
LASP1  
LATS2  
LCN2  
LDHA  
LDHB  
LDLR  
LGR4  
LIFR  
LIMK1  
LIN28A  
LIN28B  
LIPA  
LOX  
LPL  
LRIG1  
LRP6  
LRRC8A  
LRRFIP1  
LTF  
LYPLA2  
LZTS1  
MAFB  
MAN1B1  
MAP2K3  
MAP2K4  
MAP2K6  
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MAP3K5  
MAP3K9  
MAP4K4  
MAP7  
MAPK1



MAPK14  
MAPK3  
MAPK7  
MAPK8  
MAPK9  
MAPRE1  
MARCKS  
MAX  
MBD2  
MBNL1  
MBNL2  
MBNL3  
MCL1  
MCM2  
MCM3  
MDM2  
MDM4  
MECP2  
MEF2C  
MEF2D  
MEGF9  
MEN1  
MEOX2  
MEST  
MET  
METTL13  
MFN2  
MGMT  
MGST2  
MIXL1  
MLEC  
MLH1  
MMP1  
MMP12  
MMP13  
MMP14

MMP15  
MMP16  
MMP2  
MMP24  
MMP26  
MMP9  
MNT  
MPL  
MPRIIP  
MRE11  
MSH2  
MSH3  
MSH6  
MSLN  
MT1M  
MTA1  
MTAP  
MTDH  
MTHFD1  
MTMR14  
MTMR3  
MTOR  
MTPN  
MTTP  
MTUS1  
MUC1  
MUC13  
MXD1  
MXI1  
MYB  
MYBL1  
MYC  
MYCBP2  
MYCN  
MYD88  
MYLIP

MYO5A  
MYO6  
MYOCD  
MYRF  
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NAIP  
NANOG  
NASP  
NAV3  
NCAM1  
NCAN  
NCAPG  
NCOA3  
NCOR2  
NCSTN  
NDRG2  
NDST1  
NDUFA4  
NEDD9  
NES  
NEU1  
NF1  
NFAT5  
NFATC1  
NFATC3  
NFIA  
NFIB  
NFKB1  
NFKBIB  
NIPSNAP1  
NKIRAS2  
NLK  
NLN  
NMI  
NOD2  
NOS3

NOTCH1  
NOTCH2  
NOTCH3  
NOX4  
NPAS3  
NPAT  
NPR1  
NPTX1  
NR1H4  
NR2E1  
NR5A2  
NRAS  
NRP1  
NSUN5  
NTF3  
NTRK3  
NUDT1  
NUMB  
OPRM1  
OSBPL2  
OSBPL8  
OXTR  
P4HB  
PAK1  
PAK4  
PAPPA  
PARP8  
PBX3  
PCBP1  
PCGF2  
PCGF5  
PCNA  
PCTP  
PDCD4  
PDGFRA  
PDGFRB

PDLIM7  
PER1  
PFKP  
PHF10  
PHF8  
PHLDB2  
PHLPP1  
PHLPP2  
PIAS3  
PICSAR  
PIGF  
PIK3CB  
PIK3CD  
PIK3R1  
PIK3R3  
PIM1  
PITX1  
PKD1  
PKD2  
PKNOX1  
PLAT  
PLAU  
PLK1  
PLOD3  
PLXNB1  
PLXNC1  
PMAIP1  
PODXL  
POLD1  
POLR3D  
POR  
POU4F2  
POU5F1  
PPARA  
PPARG  
PPIF

PPM1D  
PPP1CA  
PPP1R13B  
PPP2R2A  
PPP2R5E  
PPP3CA  
PRAP1  
PRDM1  
PRDM4  
PRDX6  
PRKAA1  
PRKCE  
PRKCH  
PRKG1  
PRKRA  
PSAP  
PSMD10  
PSMD9  
PTBP3  
PTEN  
PTGS2  
PTH1R  
PTK2  
PTP4A2  
PTPN1  
PTPN14  
PTPN2  
PTPN9  
PTPRF  
PTPRO  
PTX3  
PURA  
PXDN  
PXN  
QKI  
RAB11A

RAB14  
RAB15  
RAB1A  
RAB27A  
RAC1  
RAD21  
RAD51  
RAD52  
RAF1  
RAN  
RARA  
RARB  
RASA1  
RASAL2  
RASGRP1  
RAVER2  
RB1  
RB1CC1  
RBL1  
RBL2  
RCC2  
RDH10  
RDX  
RECK  
REG4  
RELN  
REST  
RET  
RFFL  
RFX6  
RFX7  
RGS5  
RHO  
RHOA  
RHOB  
RHOBTB1

RHOC  
RICTOR  
RMND5A  
RNASEL  
RND3  
ROBO1  
ROBO2  
ROCK1  
ROCK2  
RPA1  
RPIA  
RPS6KA1  
RPS6KA3  
RPS6KB1  
RPS7  
RREB1  
RSU1  
RTKN  
RTN4  
RUNX1  
RUNX2  
RUNX3  
RXRA  
S100A1  
S100A8  
S100B  
SAPCD2  
SATB1  
SATB2  
SCNN1A  
SDHD  
SELE  
SEMA4C  
SEMA4D  
SENP1  
SERINC5



SERPINB5  
SERPINB9  
SERPINE1  
SERPINH1  
SERPINI1  
SET  
SETD2  
SETDB1  
SFRP2  
SFRP5  
SGPL1  
SGPP2  
SH3BGRL  
SH3PXD2A  
SHMT2  
SIRPA  
SIRT1  
SIRT2  
SIRT7  
SIX1  
SLC16A2  
SLC1A2  
SLC22A7  
SLC25A5  
SLC2A1  
SLC2A3  
SLC45A3  
SLC6A4  
SLC7A6  
SMAD1  
SMAD2  
SMAD3  
SMAD4  
SMAD5  
SMAD7  
SMARCA2

SMARCA4

SMARCA5

SMC1A

SMN1

SMO

SMURF1

SNAI1

SNAI2

SOCS1

SOCS3

SOCS5

SOCS6

SOCS7

SOD2

SOD3

SOX2

SOX4

SOX5

SOX6

SOX9

SP1

SP7

SPARC

SPHK1

SPRED1

SPRED2

SPRY1

SPRY2

SPRY3

SPRY4

SPTBN1

SPTLC1

SRC

SREBF1

SREBF2

SRF

SRGAP1  
SRGAP2  
SRR  
SRSF10  
SSSCA1  
SSX2IP  
ST7L  
STAG2  
STARD13  
STAT1  
STAT3  
STAT5A  
STAT5B  
STK11  
STK40  
STMN1  
STUB1  
STX16  
SUFU  
SUV39H1  
SUZ12  
SWAP70  
TAB2  
TAB3  
TAC1  
TACC3  
TAP1  
TARBP1  
TBC1D1  
TBC1D2  
TBK1  
TBXA2R  
TCEAL1  
TCF21  
TCF3  
TDG

TERT  
TET1  
TET2  
TET3  
TFAM  
TFAP2A  
TFAP2C  
TFEB  
TFRC  
TGFA  
TGFB1  
TGFB2  
TGFB1  
TGFB1  
TGFB1  
TGFB2  
TGFB2  
TGFB3  
TGIF1  
TGIF2  
THBS1  
THSD7A  
TIAM1  
TICAM1  
TICAM2  
TIMP2  
TIMP3  
TIRAP  
TJAP1  
TLN2  
TLR2  
TLR3  
TLR4  
TLR7  
TM9SF3  
TMC7  
TMED7  
TMEM2

TMEM92

TMEM9B

TMOD3

TNF

TNFAIP3

TNFRSF10B

TNFSF10

TNFSF12

TNFSF13

TNK2

TOPORS

TP53

TP53BP2

TP53COR1

TP53I11

TP53INP1

TP63

TP73

TPM1

TPM3

TPPP3

TPRG1

TRAF4

TRAF7

TRIB2

TRIB3

TRIM11

TRIM68

TRIM8

TRPC5

TRPS1

TSG101

TSPAN6

TUG1

TUSC2

TWF1

TWIST1  
TWIST2  
UBE2C  
UBE2I  
UBE2N  
UCA1  
UGT2B15  
UGT2B17  
ULK1  
UNG  
USP14  
USP18  
VDAC1  
VDR  
VEGFA  
VEZT  
VGLL4  
VHL  
VIM  
VLDLR  
VMP1  
VPS4B  
VPS51  
WASF3  
WEE1  
WNT1  
WNT3A  
WNT4  
WT1  
WWP1  
XBP1  
XIAP  
XIST  
XPA  
XRCC5  
YAP1

YBX1

YBX3

YES1

YOD1

YWHAZ

YY1

YY1AP1

ZBTB4

ZBTB7A

ZEB1

ZEB2

ZFP36

ZFYVE9

ZHX1

ZNF217

ZNFX1

ZYX