

**Supplementary Table 2.** Predicted mRNA gene targets for each of the five miRNAs significantly associated with aBMD were identified based on experimental validation of miRNA-mRNA interaction via luciferase, qRT-PCR, or Western blot experiments as well as the presence of proteins from the targeted mRNA in baboon bone.

<b>Mature miRNA ID</b>	<b>Target Gene Name</b>
hsa-miR-16-2-3p	IGFBP5
hsa-miR-16-2-3p	SUB1
hsa-miR-197-3p	ALDOA
hsa-miR-197-3p	CYCS
hsa-miR-197-3p	EEF1A1
hsa-miR-197-3p	FGB
hsa-miR-197-3p	IGFBP5
hsa-miR-197-3p	ISYNA1
hsa-miR-197-3p	MYH9
hsa-miR-197-3p	NME2
hsa-miR-197-3p	RFX1
hsa-miR-197-3p	RPL14
hsa-miR-197-3p	SOD1
hsa-miR-197-3p	SOD2
hsa-miR-197-3p	VDAC1
hsa-miR-21-5p	ACAT1
hsa-miR-21-5p	CENPQ
hsa-miR-21-5p	CLU
hsa-miR-21-5p	COL5A2
hsa-miR-21-5p	DTX3L
hsa-miR-21-5p	FAM126B
hsa-miR-21-5p	FUBP1
hsa-miR-21-5p	HNRNPK
hsa-miR-21-5p	KBTBD7
hsa-miR-21-5p	LAMP2
hsa-miR-21-5p	MMP9
hsa-miR-21-5p	NCSTN
hsa-miR-21-5p	PARP1
hsa-miR-21-5p	PKD2
hsa-miR-21-5p	PTX3
hsa-miR-21-5p	PURA
hsa-miR-21-5p	RPS7
hsa-miR-21-5p	SOD3
hsa-miR-320a	ANXA11
hsa-miR-320a	CALM3
hsa-miR-320a	CALR

hsa-miR-320a	CD44
hsa-miR-320a	COTL1
hsa-miR-320a	EEF2
hsa-miR-320a	EP400
hsa-miR-320a	GAPDH
hsa-miR-320a	HSP90AB1
hsa-miR-320a	HSPA9
hsa-miR-320a	ISYNA1
hsa-miR-320a	LMNB1
hsa-miR-320a	MDH2
hsa-miR-320a	MIF
hsa-miR-320a	MMP9
hsa-miR-320a	MRPS18B
hsa-miR-320a	PFN1
hsa-miR-320a	PKM
hsa-miR-320a	PRDX3
hsa-miR-320a	RALY
hsa-miR-320a	RPL8
hsa-miR-320a	RPLP1
hsa-miR-320a	RPS17
hsa-miR-320a	SNRPB
hsa-miR-320a	SNRPD2
hsa-miR-320a	TFRC
hsa-miR-320a	TOB2
hsa-miR-320a	VCL
hsa-miR-320a	VDAC1
hsa-miR-320a	VDAC2
hsa-miR-320b	MRPS18B
hsa-miR-320b	PFN1
hsa-miR-320b	VCL
hsa-miR-331-5p	CENPQ
hsa-miR-331-5p	RHOA
hsa-miR-331-5p	SOD2
hsa-miR-339-5p	EEF1A1
hsa-miR-339-5p	FRRS1
hsa-miR-339-5p	HSPA9
hsa-miR-339-5p	NCSTN
hsa-miR-339-5p	PARP1
hsa-miR-339-5p	PGD
hsa-miR-339-5p	PSAP
hsa-miR-339-5p	SOD2
hsa-miR-371a-5p	CPM
hsa-miR-371a-5p	CYCS

hsa-miR-371a-5p	HMG2
hsa-miR-371a-5p	HSP90AA1
hsa-miR-371a-5p	OMD
hsa-miR-371a-5p	TLN1
hsa-miR-374a-3p	HSP90AA1
hsa-miR-374a-5p	CASP3
hsa-miR-374a-5p	CENPQ
hsa-miR-374a-5p	EPDR1
hsa-miR-374a-5p	MYLIP
hsa-miR-374a-5p	PRDX3
hsa-miR-374a-5p	RAP1B
hsa-miR-423-5p	ADAMTS14
hsa-miR-423-5p	ARHGDI1
hsa-miR-423-5p	CALM3
hsa-miR-423-5p	CEACAM6
hsa-miR-423-5p	GAPDH
hsa-miR-423-5p	MFGE8
hsa-miR-423-5p	NDE1
hsa-miR-423-5p	NME2
hsa-miR-423-5p	PGAM4
hsa-miR-423-5p	PKM
hsa-miR-423-5p	PPIB
hsa-miR-424-3p	EEF2K
hsa-miR-424-3p	LGALS3
hsa-miR-424-3p	SNRPD1
hsa-miR-484	ADGRE5
hsa-miR-484	ANXA11
hsa-miR-484	ANXA6
hsa-miR-484	ARHGDI1
hsa-miR-484	CAP1
hsa-miR-484	CAPZB
hsa-miR-484	CASP7
hsa-miR-484	CBR1
hsa-miR-484	CUTA
hsa-miR-484	DHX15
hsa-miR-484	EEF1A1
hsa-miR-484	EEF2
hsa-miR-484	FGB
hsa-miR-484	FLNA
hsa-miR-484	FUZ
hsa-miR-484	GANAB
hsa-miR-484	GAPDH
hsa-miR-484	GNS

hsa-miR-484	HNRNPC
hsa-miR-484	HNRNPK
hsa-miR-484	HSP90AA1
hsa-miR-484	HSP90AB1
hsa-miR-484	LAMP1
hsa-miR-484	LMNB1
hsa-miR-484	MDH2
hsa-miR-484	MGAT5
hsa-miR-484	MRPS18B
hsa-miR-484	MYH9
hsa-miR-484	MYO5A
hsa-miR-484	P4HB
hsa-miR-484	PARP1
hsa-miR-484	PDXK
hsa-miR-484	PFKL
hsa-miR-484	PGD
hsa-miR-484	PHB
hsa-miR-484	PKM
hsa-miR-484	PRDX1
hsa-miR-484	PRDX4
hsa-miR-484	PURA
hsa-miR-484	RPN2
hsa-miR-484	SNRPD2
hsa-miR-484	SNRPD3
hsa-miR-484	TKT
hsa-miR-484	TLN1
hsa-miR-484	ZC3H7B
hsa-miR-484	ZZEF1