

Table S1: Beclin-1-targeting miRNAs

microRNA family	Seed position	Seed type	Transcript region	Repeat	Conservation		
					Primates	Mammals	Other vert.
miR-551a	chr17:40966646	7-mer-m8	CDS	no	89 %	70 %	31 %
miR-77ab	chr17:40963678	7-mer-m8	CDS	no	89 %	83 %	8 %
miR-93/93a/105/106a/291a-3p/294/295/302abcde/372/373/428/519a/520be/520acd-3p/1378/1420ac	chr17:40962422	7-mer-A1	3pUTR	no	56 %	0 %	0 %
miR-96/507/1271	chr17:40970871	7-mer-m8	CDS	no	78 %	57 %	38 %
miR-96/507/1271	chr17:40971530	7-mer-A1	5pUTR	no	78 %	35 %	0 %
miR-138/138ab	chr17:40971067	7-mer-A1	5pUTR	no	67 %	48 %	0 %
miR-139-5p	chr17:40971150	8-mer	5pUTR	no	56 %	26 %	0 %
miR-141/200a	chr17:40966633	7-mer-m8	CDS	no	89 %	70 %	8 %
miR-144	chr17:40962213	7-mer-m8	3pUTR	no	67 %	65 %	8 %
miR-144	chr17:40963797	7-mer-m8	CDS	no	89 %	43 %	15 %
miR-145	chr17:40975812	7-mer-m8	CDS,5pUTR	no	89 %	74 %	31 %
miR-146ac/146b-5p	chr17:40971236	8-mer	5pUTR	no	78 %	22 %	0 %
miR-150/5127	chr17:40971032	7-mer-m8	5pUTR	no	78 %	52 %	0 %
miR-150/5127	chr17:40971049	8-mer	5pUTR	no	100 %	70 %	0 %
miR-15abc/16/16abc/195/322/424/497/1907	chr17:40966580	7-mer-m8	CDS	no	100 %	78 %	38 %
miR-15abc/16/16abc/195/322/424/497/1907	chr17:40966603	7-mer-m8	CDS	no	89 %	57 %	0 %
miR-17/17-5p/20ab/20b-5p/93/106ab/427/518a-3p/519d	chr17:40962637	7-mer-A1	3pUTR	no	100 %	78 %	15 %
miR-182	chr17:40971530	8-mer	5pUTR	no	78 %	35 %	0 %
miR-187	chr17:40963690	7-mer-m8	CDS	no	100 %	52 %	15 %
miR-187	chr17:40975808	7-mer-A1	CDS,5pUTR	no	89 %	65 %	0 %
miR-199ab-5p	chr17:40962451	7-mer-A1	3pUTR	no	100 %	70 %	0 %
miR-21/590-5p	chr17:40967964	7-mer-m8	CDS	no	56 %	4 %	0 %
miR-216a	chr17:40962467	7-mer-m8	3pUTR	no	67 %	48 %	0 %
miR-216a	chr17:40966612	8-mer	CDS	no	100 %	52 %	23 %
miR-216b/216b-5p	chr17:40962192	7-mer-m8	3pUTR	no	100 %	65 %	0 %
miR-216b/216b-5p	chr17:40966612	7-mer-A1	CDS	no	100 %	52 %	23 %
miR-219-5p/508/508-3p/4782-3p	chr17:40966666	7-mer-A1	CDS	no	78 %	61 %	8 %
miR-29abcd	chr17:40970981	7-mer-m8	5pUTR	no	78 %	17 %	0 %
miR-30abcdef/30abe-5p/384-5p	chr17:40962673	8-mer	3pUTR	no	100 %	91 %	31 %
miR-31	chr17:40971532	7-mer-A1	5pUTR	no	78 %	43 %	0 %
miR-103a/107/107ab	chr17:40962164	7-mer-A1	3pUTR	no	56 %	30 %	8 %
miR-103a/107/107ab	chr17:40966604	7-mer-m8	CDS	no	100 %	78 %	0 %
miR-103a/107/107ab	chr17:40971228	7-mer-A1	5pUTR	no	56 %	0 %	0 %
miR-124/124ab/506	chr17:40962749	7-mer-A1	3pUTR	no	89 %	57 %	15 %
miR-33ab/33-5p	chr17:40967939	7-mer-A1	CDS	no	67 %	43 %	31 %
miR-129-5p/129ab-5p	chr17:40962662	7-mer-A1	3pUTR	no	100 %	52 %	15 %

Table S2: BCAR4-targeting miRNAs

microRNA family	Seed position	Seed type	Transcript region	Repeat	Conservation		
					Primates	Mammals	Other vert.
miR-503	chr1:94054762	8-mer	CDS,ncRNA	no	89 %	70 %	0 %
miR-7/7ab	chr1:94033410	7-mer-A1	ncRNA	no	78 %	52 %	0 %
miR-7/7ab	chr1:94054711	7-mer-A1	CDS,ncRNA	no	89 %	78 %	46 %
miR-133abc	chr1:94114361	7-mer-m8	ncRNA	no	67 %	0 %	0 %
miR-93/93a/105/106a/291a-3p/294/295/302abcde/372/373/428/519a/520be/520acd-3p/1378/1420ac	chr1:94054866	7-mer-m8	CDS,ncRNA	no	89 %	74 %	46 %
miR-138/138ab	chr1:94041592	7-mer-m8	CDS	no	89 %	65 %	8 %
miR-146ac/146b-5p	chr1:94057945	7-mer-m8	CDS,ncRNA	no	89 %	78 %	23 %
miR-150/5127	chr1:94079639	7-mer-A1	5pUTR	no	89 %	43 %	0 %
miR-150/5127	chr1:94114344	7-mer-A1	ncRNA	no	78 %	0 %	0 %
miR-155	chr1:94054665	7-mer-m8	CDS,ncRNA	no	0 %	0 %	0 %
miR-15abc/16/16abc/195/322/424/497/1907	chr1:94054762	7-mer-A1	CDS,ncRNA	no	89 %	70 %	0 %
miR-15abc/16/16abc/195/322/424/497/1907	chr1:94079435	7-mer-m8	CDS	no	100 %	83 %	38 %
miR-15abc/16/16abc/195/322/424/497/1907	chr1:94147375	7-mer-m8	5pUTR	no	67 %	4 %	0 %
miR-17/17-5p/20ab/20b-5p/93/106ab/427/518a-3p/519d	chr1:94037341	7-mer-m8	CDS	no	89 %	30 %	0 %
let-7/98/4458/4500	chr1:94311254	7-mer-A1	5pUTR,ncRNA	yes	44 %	39 %	0 %
miR-19ab	chr1:94027647	7-mer-A1	3pUTR	no	89 %	78 %	31 %
miR-1ab/206/613	chr1:94188935	7-mer-A1	ncRNA	no	78 %	0 %	0 %
miR-203	chr1:94027429	7-mer-m8	3pUTR	no	78 %	52 %	15 %
miR-203	chr1:94027927	7-mer-A1	CDS,ncRNA	no	89 %	48 %	23 %
miR-204/204b/211	chr1:94054619	7-mer-A1	CDS	no	0 %	0 %	0 %
miR-205/205ab	chr1:94032957	7-mer-A1	CDS,ncRNA	no	100 %	65 %	0 %
miR-205/205ab	chr1:94033301	7-mer-m8	CDS,ncRNA	no	78 %	39 %	46 %
miR-205/205ab	chr1:94037285	7-mer-A1	CDS	no	78 %	26 %	69 %
miR-214/761/3619-5p	chr1:94033004	7-mer-A1	CDS,ncRNA	no	78 %	74 %	31 %
miR-214/761/3619-5p	chr1:94147377	7-mer-m8	5pUTR	no	67 %	4 %	0 %
miR-216a	chr1:94055908	7-mer-A1	ncRNA	yes	89 %	17 %	0 %
miR-216b/216b-5p	chr1:94055908	7-mer-A1	ncRNA	yes	89 %	17 %	0 %
miR-217	chr1:94054813	7-mer-A1	CDS,ncRNA	no	67 %	74 %	0 %
miR-217	chr1:94079469	7-mer-m8	CDS	no	56 %	22 %	0 %
miR-22/22-3p	chr1:94048067	7-mer-m8	CDS,ncRNA	no	44 %	0 %	0 %
miR-22/22-3p	chr1:94188993	7-mer-A1	ncRNA	no	33 %	0 %	0 %
miR-122/122a/1352	chr1:94140258	7-mer-A1	CDS	no	67 %	26 %	0 %
miR-23abc/23b-3p	chr1:94107861	7-mer-A1	CDS,ncRNA	no	89 %	74 %	23 %
miR-24/24ab/24-3p	chr1:94048417	7-mer-m8	CDS,ncRNA	no	100 %	52 %	31 %
miR-24/24ab/24-3p	chr1:94054591	7-mer-m8	CDS	no	56 %	61 %	31 %
miR-24/24ab/24-3p	chr1:94055876	8-mer	ncRNA	yes	89 %	4 %	0 %
miR-24/24ab/24-3p	chr1:94055919	7-mer-A1	ncRNA	yes	56 %	43 %	0 %
miR-25/32/92abc/363/363-3p/367	chr1:94108742	7-mer-m8	ncRNA	yes	56 %	0 %	0 %
miR-26ab/1297/4465	chr1:94048114	7-mer-m8	CDS,ncRNA	yes	67 %	61 %	0 %
miR-27abc/27a-3p	chr1:94032921	7-mer-A1	CDS,ncRNA	no	100 %	35 %	38 %
miR-27abc/27a-3p	chr1:94048251	8-mer	CDS,ncRNA	no	100 %	70 %	8 %
miR-29abcd	chr1:94050535	7-mer-m8	5pUTR,ncRNA	yes	89 %	35 %	0 %
miR-338/338-3p	chr1:94050591	7-mer-A1	5pUTR,ncRNA	no	89 %	43 %	0 %
miR-338/338-3p	chr1:94188910	7-mer-m8	ncRNA	no	44 %	4 %	0 %
miR-33a-3p/365/365-3p	chr1:94033487	7-mer-A1	ncRNA	yes	22 %	0 %	0 %
miR-33ab/33-5p	chr1:94188872	7-mer-A1	ncRNA	no	33 %	0 %	0 %
miR-34ac/34bc-5p/449abc/449c-5p	chr1:94033351	7-mer-A1	CDS,ncRNA	no	67 %	13 %	23 %
miR-125a-5p/125b-5p/351/670/4319	chr1:94107897	7-mer-A1	CDS	no	100 %	74 %	15 %
miR-10abc/10a-5p	chr1:94033567	7-mer-m8	ncRNA	yes	67 %	0 %	0 %
miR-455-5p	chr1:94057930	7-mer-m8	CDS,ncRNA	no	67 %	22 %	0 %
miR-455-5p	chr1:94311170	7-mer-m8	5pUTR,ncRNA	yes	44 %	0 %	0 %
miR-128/128ab	chr1:94048252	7-mer-A1	CDS,ncRNA	no	100 %	70 %	8 %
miR-490-3p	chr1:94033662	7-mer-m8	ncRNA	yes	22 %	0 %	0 %