

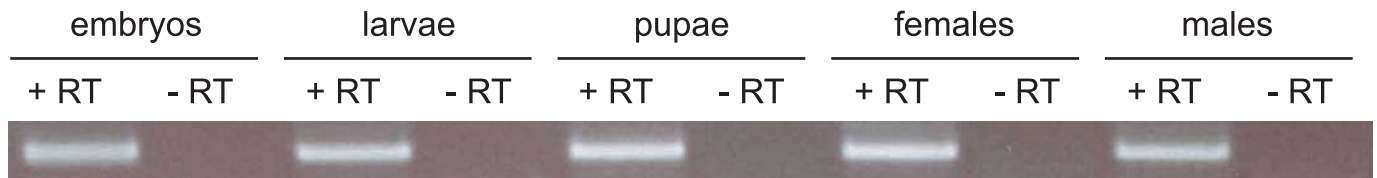
A single Hox locus in *Drosophila* produces functional microRNAs from opposite DNA strands

Supplementary Data

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Figure S1

pri-miR-iab-4 sense



pri-miR-iab-4 AS

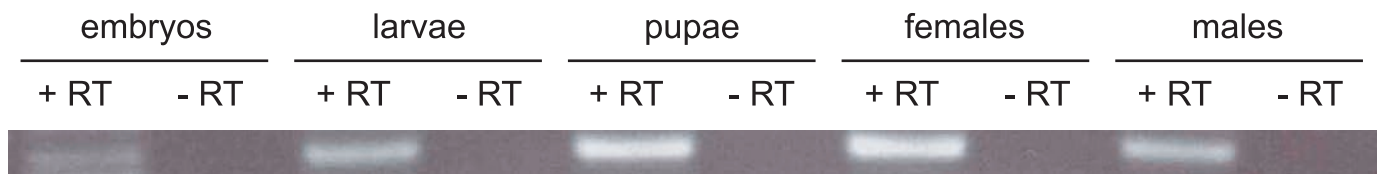


Figure S1: miR-iab-4 sense and anti-sense are expressed throughout fly development. Shown are strand-specific RT-PCR products (neg. control without RT) for the miR-iab-4 sense and anti-sense primary transcripts for different stages of fly development.

Figure S2

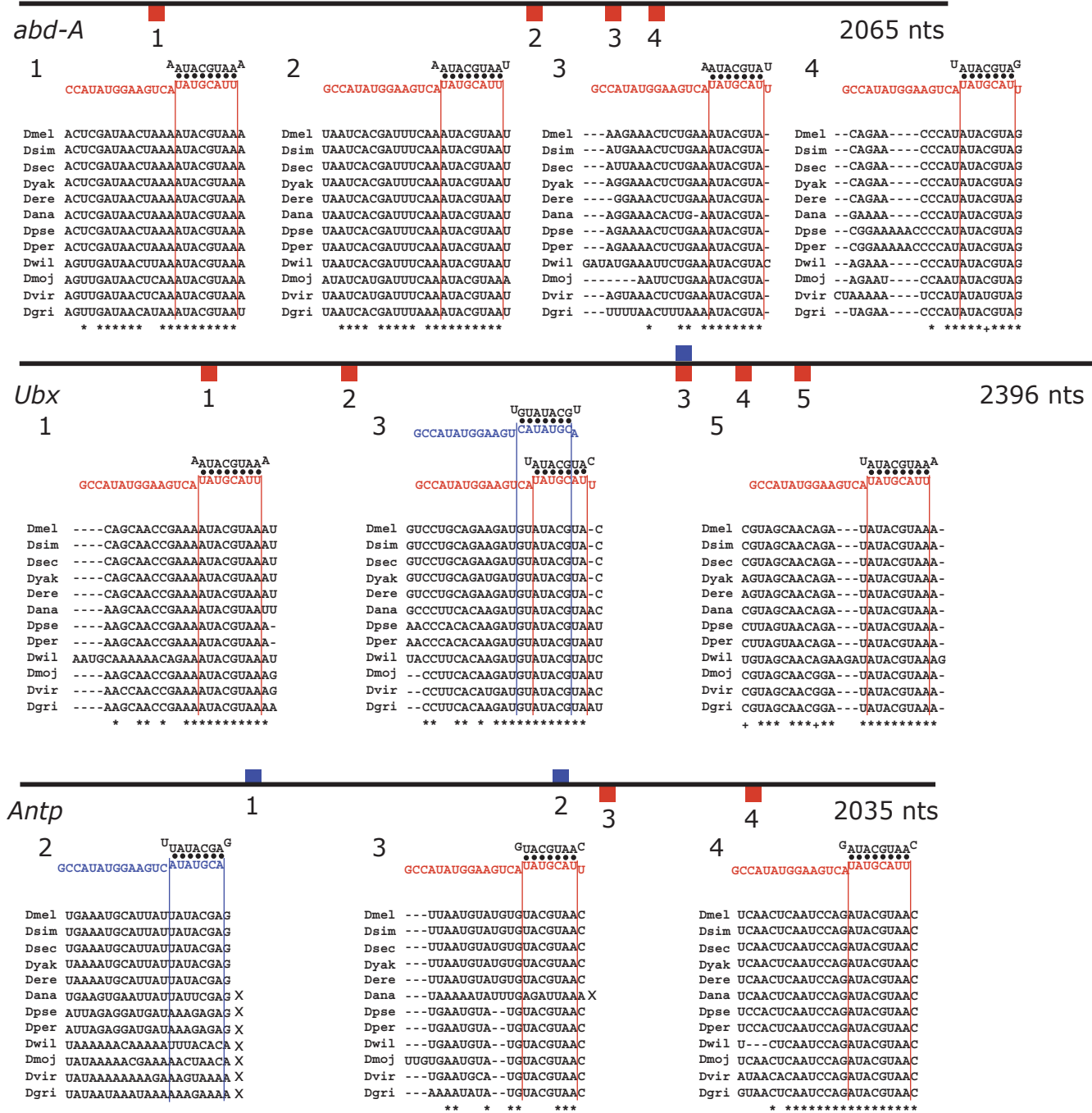


Figure S2. miR-iab-4AS target sites the *Hox* genes *abd-A*, *Ubx*, and *Antp*
miR-iab-4AS has 4 seed sites (nts 2-8 or A+2-7; Lewis et al., 2005; red) in *abd-A*, 5 in *Ubx*, and 2 in *Antp* of which 4, 3, and 1 are fully conserved across 12 *Drosophila* species (*Drosophila melanogaster*, *simulans*, *sechellia*, *yakuba*, *erecta*, *ananassae*, *pseudoobscura*, *persimilis*, *willistoni*, *mojavensis*, *virilis*, *grimshawi*), respectively. 1 site in the 3'UTR of *Ubx* shows extended complementarity such that it also constitutes a seed site for miR-iab-4 (blue). *Antp* has 2 sites for miR-iab-4 that are distinct from the miR-iab-4AS sites, while *abd-A* has no such sites. * denotes fully conserved sequence positions, and x denotes species where the site is not conserved.

Table S1: Anti-sense transcripts near known miRNAs**Drosophila miRNAs**

miRNA	#transcripts	Transcript IDs
FlyBase Noncoding Genes		
dme-mir-281-1	1	CR33594
dme-mir-281-2	1	CR33596
ESTs		
dme-mir-277	2	EC255080,CO344262
dme-mir-2a-1	1	CO341270
dme-mir-284	1	CK135092
dme-mir-33	1	BI631776
dme-mir-2a-2	6	CO341270,EC253459,EC253459,CO341270,CO341270,CO341270
Introns		
dme-mir-289, dme-mir-31b, dme-mir-274		

Table S1: Anti-sense transcripts near known miRNAs (continued)**Human miRNAs**

miRNA	#transcripts	Transcript IDs
RefSeq Genes		
hsa-mir-662	2	NM_001025190,NM_001025190
hsa-mir-328	4	NM_024712,NM_024712,NM_024712,NM_024712
hsa-mir-367	4	NM_015454,NM_016648,NM_015454,NM_016648
hsa-mir-191	1	NM_199074
UCSC Genes		
hsa-mir-662	2	uc002cjj,uc002cjj
hsa-mir-328	12	uc002esa,uc002esb,uc002esc,uc002esa,uc002esb,uc002esc,uc002esa,uc002esb,uc002esc,uc002esa,uc002esb,uc002esc
hsa-mir-367	8	uc003iay,uc003iaz,uc003iba,uc003ibb,uc003iay,uc003iaz,uc003iba,uc003ibb
hsa-mir-99b	1	uc002pxg
hsa-let-7e	1	uc002pxg
hsa-mir-636	2	uc002jsz,uc002jta
hsa-mir-125a	1	uc002pxg
hsa-mir-191	1	uc003cvn
ESTs		
hsa-mir-639	11	DA578654,DB036923,BE163339,BX337999,BE173861,AW601441,AW601462,AW602622,AW602643,BE076002,BG978956
hsa-mir-26a-1	1	BG013974
hsa-mir-659	2	N64538,N64538
hsa-mir-632	4	CR982540,BF739929,BF986402,BG005263
hsa-mir-545	1	CF121922
hsa-mir-142	11	AA736584,AI214324,AA480329,AI803986,BM987623,AW075941,BM994627,AA749202,AW075748,AA804593,AA804593
hsa-mir-1-2	2	AI220268,AI265999
hsa-mir-614	8	BG546987,AA494355,BE001688,BE001688,BE001688,BE001688,BE815242,BE825683
hsa-mir-34c	1	CB243753
hsa-mir-423	1	AW001018
hsa-mir-324	2	DB118628,AA428344
hsa-mir-609	5	BF946814,BF946811,BF946814,BF946814,BF946814
hsa-mir-143	3	AW750687,AW750687,BF328624
hsa-mir-612	13	BF371267,BF359112,BQ373809,BQ332593,BQ332596,BF808842,BF359123,BQ373809,BF877468,BG990102,AW939381,BQ327427,BF894409
hsa-mir-124a-	1	BU738550
hsa-mir-570	1	BE162667
hsa-mir-631	10	CV569139,CN361157,BX644907,DA065297,BF827870,CR978078,BF922074,BF827870,BM709090,AA359490
hsa-mir-770	3	AI970289_dup1,AI636778_dup1,AI963928_dup1
hsa-mir-299	2	AW895894,AW895880

hsa-let-7i	1	CR992282
hsa-mir-503	10	R79973,H01302,R79973,R79973,R79973,H01302,R79973,R79973,R79973,R79973
hsa-mir-339	1	DB317795
hsa-mir-219-2	1	DA115674
hsa-mir-125b-	1	BG000222
hsa-mir-499	13	BE297149,BE297149,BE297149,BE297149,BE297149,BE297149,BE297149,BE297149,BE297149,BE297149,BE297149,BE297149,BE297149
hsa-mir-517a	1	BF994458
hsa-mir-141	4	AI695443,AA863389,AA863395,AI969882
hsa-mir-223	5	BQ012126,BQ010657,AW192334,AA845292,BQ011993
hsa-mir-371	2	DB508823,DB443882
hsa-mir-24-2	1	BF061990
hsa-mir-193a	1	AI770050
hsa-mir-429	5	AI312008,AI312008,AI312008,AI312008,AI312008
hsa-mir-568	18	CB054179,CA425784,AI383978,AI024792,CK902677,AA489694,AW024848,AI912487,AA115749,BM668044,AA115749,BM668044,AA115749,BM668044,AA115749,AA115749,AA115749
hsa-mir-565	1	DC404319
hsa-mir-522	2	BI057935,BI057935
hsa-mir-24-1	1	CB852241
hsa-mir-516-3	2	BE466189,BF223893
hsa-mir-624	1	H66135
hsa-mir-224	1	BF367311
hsa-mir-328	20	BM792516,BE868797,BI092635,BI260928,BQ706797,CA488307,CD243179,BM853445,BM789033,BX390378,BI092635,BX390378,BM792516,BQ706797,BE868797,BM853445,CA488307,CD243179,BI260928,BM789033
hsa-mir-7-1	1	AW367387
hsa-mir-663	1	BM893562
hsa-mir-643	1	BF356097
hsa-mir-320	1	AI041315
hsa-let-7a-1	1	BF372275
hsa-mir-214	11	AI961147,AI202700,BG055203,BQ012655,AI039268,CF529290,BQ447950,AI658740,AI242334,AW296598,AI126848
hsa-mir-363	1	AA353588
hsa-let-7b	6	BX361219,BX349705,BU732454,AI382133,DB328200,AW028822
hsa-mir-296	1	BE044227
hsa-mir-590	2	AW812109,AW812109
hsa-mir-21	4	BX399365,AA837010,BE932516,CA414094
hsa-mir-186	3	AA258173,BQ271697,AW968323
hsa-mir-622	1	BM542991
hsa-mir-495	3	AA613245,AW593422,BE467211
hsa-mir-144	1	BX644926

hsa-mir-205	60	BX454368,BU607326,BU687118,BU686798,BM976602,BF088470,BF088470,DB313515,AU158081,AU158081,R48249,R73789,BG989285,AA627916,AI969511,AW275818,AW275825,AW662302,BU732467,CN478782,DB313077,W68529,H25944,AI800001,BM980083,BU676846,CB048050,AW628474,R73789,AA631033,AI375939_dup1,CB409600,BQ378988,R48249,AA642987,BF088470,AI611676,R48249,R73789,BE717915,R48249,AW117862,CB409600,R48249,R73789,BE717919,BE717969,BE837877,BE717939,BE645803,R48249,BE717915,AW381579,AW380949,AA730105,R73789,R48249,BE717915,AI220853,AW117862
hsa-mir-125a	1	DB078945
hsa-mir-29b-1	1	BF447465
hsa-mir-641	1	BF805572
hsa-let-7d	8	AI360684,BF511039,BF511477,T85314,BE932147,BE709888,BU736404,AA806216
hsa-mir-194-2	3	AI392832,AW294586,DB331974
hsa-mir-377	5	BF376962,BF376962,BF376962,BF376962,BF376962
hsa-mir-23b	3	BG004545,BG004545,BG004545
hsa-mir-555	1	BF842814
hsa-mir-655	2	BG000132,BG000132
hsa-mir-365-2	1	AA682513
hsa-mir-29a	2	AI261722,BF000417
hsa-mir-564	10	CF126629,BQ082498,BQ082492,BQ896914,BQ082492,BQ082498,AL532442,AL532442,AL532442,AL532442
hsa-mir-675	83	AL571290,AL569789,BF997501,AL514065,AL571212,W72208,BQ366088,AW946259,AA864221,BF590747,AL571290,AI738732,BG000974,BG012341,BQ367462,AL571290,AA928657,R93762,BM678988_dup1,AI146817,AI247386,BF985264,BX453708,AL564130,BG012341,AW196761,AW196780,BG009089,BG013206,BG000974,BG011738,BF985264,BG000974,BF985264,BF770659,BG012341,BX453708,BG000974,BX453708,BF770659,BI044667,BQ367462,BG011738,BF770659,BG012341,AA928657,R93762,BG013206,BG009089,BI044667,AA928657,BQ367462,BG000974,R93762,W72208,AA864221,AL564130,BG012347,AA928657,BQ366088,BQ367462,BG011738,BQ367462,BF770659,BI044667,BQ367462,AI377593,BQ367462,AI377593,AL564130,R93762,BQ367462,W72208,BG012347,BQ367462,BI044667,BQ367462,W72208,AA864221,R93762,AL569789,BQ367462,BG012347
hsa-mir-33b	1	DB361007
hsa-mir-103-2	5	AA477191,BE768941,BE768943,BE768941,BE768943
hsa-mir-130a	1	DA811291
hsa-mir-196b	2	BQ923616,BM549446
hsa-mir-647	7	AL708944,BF857645,DB066850,BI006021,BF857645,DB066850,DB066850
hsa-mir-27a	4	AW797020,AW797020,AW797020,AW797020
hsa-mir-611	4	AA602796,BQ130146,DV461029,AW104310
hsa-mir-190	1	DB288334
hsa-mir-421	1	H63707
hsa-mir-101-1	1	BU786820
hsa-mir-221	1	AW842797
hsa-mir-192	2	AI672369,BG982441

hsa-mir-367	28	BG499366,BQ217140,H43466,BM796975,AA451825,BF790426,BG431297,BG898445,BM853135,BU854431,BX488044,CB146063,CB162796,CN346204,DT218636,W49839,W39691,CB135486,BQ920803,AA160180,AA372829,BF701214,CN419691,BU787911,BE748087,AV714955,BE748087,W39691
hsa-mir-567	1	AA054551
hsa-mir-122a	3	R91986,R91986,R91986
hsa-mir-30c-2	9	BQ022726,AI087792,AI474776,W93081,AW168091,BF439917,BF439062,AI768381,BF594736
hsa-mir-133a-	4	AA211717,DB330925,AA211717,AA211717
hsa-mir-372	2	DB443882,AW833903
hsa-mir-630	10	BX454918,CB854863,BX412844,CF891283,BX412844,BX454918,CB854863,CF891283,BX454918,BX454918
hsa-mir-635	8	AA210899,BQ705942,BQ705942,BQ705942,BQ705942,BQ705942,BQ705942,AA210899
hsa-mir-198	11	AW364521,AW936518,AW936507,AA614015,BX395666,AA897679,BF733997,BF367500,AW364521,BM684744,BX395666
hsa-mir-202	1	AW340536
hsa-mir-106b	2	AA078024,AA078024
hsa-mir-508	1	AW665118
hsa-mir-98	1	BM956031
hsa-mir-130b	1	DV080646
hsa-mir-155	5	BG058661,BG058739,AI863758,AI863758,AI863758
hsa-mir-373	6	AI825624,AI656634,BE466114,AI825746,BE672151,BE046897
hsa-mir-516-2	1	BQ025835
hsa-mir-548a-	1	AW851470
hsa-mir-505	3	BF956603,BF956603,BF956603
hsa-mir-9-2	8	BM676994,DC425874,DB315227,BX412634,BM683678,BX412634,BX412634,BX412634
hsa-mir-135a-	1	BM918632
hsa-mir-636	24	AI890310,BX434220,BU608163,CA306910,AW316782,CB241746,CA420551,CA423953,AL581513,BI012130,BI084978,BU168060,BU628861,CA420567,CD367228,BX453763,BI010983,BU624553,BX434220,BX434220,CB241746,AI890310,BX434220,DB205468
hsa-mir-637	5	AI203861,AW974502,AA768246,AW974502,AW974502
hsa-mir-621	1	BF923438
hsa-mir-25	6	BE077684,BQ377098,BQ377098,BE077684,BE077684,BE077684
hsa-mir-411	2	AW895894,AW895880
hsa-mir-29c	43	AA832487,AA732327,AA814450,AA290626,AI949631,BF431339,AI796930,AI277016,AI139038,BF446797,BF196476,AW015122,AW055230,AI927692,BU686674,BQ009786,BU607478,CA312488,CA312468,AI800208,AI582596,AI634533,BF592005,R48833,AI628443,AI935532,AI435146,BQ018823,BE043082,BE045365,DB302666,AW058564,T59406,T59406,R48833,T59406,R48833,R48833,R48833,T59406,T59406,R48833,R48833
hsa-mir-451	4	H90496,BX644926,H90496,H90496
hsa-mir-145	4	AI825923,AI678858,BF995019,AI659796
hsa-mir-133a-	8	BF508318,BF446240,AA063595,N80784,AI819052,DB327850,BX647033,AA063595
hsa-mir-548d-	2	BQ889295,BQ889295
hsa-mir-301	1	CV414363

hsa-mir-671	98	BQ576140,BF570037,BQ007968,BQ574801,CA945217,C K904076,DB323915,DB323780,BF115617,BX330457,AW 664880,BG054996,BQ017347,BE855754,BM680658,BU6 30312,DB323018,AI978627,AA534198,CA431554,CA450 521,BU632964,CB857275,AW195142,BI966035,AW1664 98,AW166513,BF594067,BU077063,BE206147,AW61291 3,BE207563,AI819341,AA209319,BM145320,AI139595,A I365580,AW958254,CB856472,CA416896,AW958254,AI 620649,AA583627,CF529167,AW005402,BM148417,AA2 09319,AI022352,AA583619,AW166054,AA209319,AA209 319,R51978,AI475193,R51978,AI569467,AI540081,R51 978,AA209319,BM144231,BM145320,AI191668,BM1496 32,R51978,R51978,R51978,R51978,AA209319,AI09088 6,AA583627,AA534198,AA678590,BE242046,T46979,R5 1978,T46979,R51978,BU733453,BE242217,AA524450,A A508608,R51978,T46979,R51978,BI524753,T46979,AW 451651,R51978,DB334087,AW082159,F09189,DB36415 2,BQ447944,CF529982,R51978,AA209319,T46979,AA37 8790
hsa-mir-650	1	BU585017
hsa-mir-616	11	BF839560,BF839556,BF839550,BF839561,BF839551,BF 839555,BF839557,BF839558,BF839549,BF839554,BF83 9560
hsa-mir-30d	1	AA137041
hsa-mir-15a	9	AA748510,BM272203,CK825000,BQ185483,AW976277,A A867999,AI086232,AA748510,AW976277
hsa-mir-29b-2	1	AA766259
hsa-mir-126	24	BX380871,BX397999,BX397999,BX380871,BX397999,B X380439,BX340281,BX397999,BX397999,BX380439,BX 381730,BX381730,BX380040,BX381730,BX380871,BX3 81730,BX380782,BX459190,BX380439,BX380871,BX36 0778,BX381730,BX397999,BX360778
hsa-mir-191	8	BQ439253,BU594868,BQ645068,BQ652614,BQ646652,B Q647682,DB059215,BQ439253
mRNAs		
hsa-mir-302c	1	AK000089
hsa-mir-302b	1	AK000089
hsa-mir-675	2	BC010054,BC004532
hsa-mir-631	2	AK128372,AK026216
hsa-mir-150	1	AK130324
hsa-mir-647	1	AK128082
hsa-mir-636	3	AF015188,AF015189,AF015190
hsa-mir-661	1	AL834492
hsa-mir-335	1	AK055108
hsa-mir-328	12	AK023886,AK056923,BC015524,BC034410,DQ891332,D Q894515,AK023886,AK056923,BC015524,BC034410,DQ 891332,DQ894515
hsa-mir-589	1	AY927477
hsa-mir-367	8	AK000089,AF068284,AK000274,AK225900,AL049996,BC 066945,BC107709,BX647100
hsa-mir-99b	1	AK125996
hsa-mir-302a	1	AK000089
hsa-let-7e	1	AK125996
hsa-mir-126	1	BC114447
hsa-mir-499	1	AK098707
hsa-mir-302d	1	AK000089
hsa-mir-125a	1	AK125996

Spliced ESTs

hsa-mir-371	1	DB443882
hsa-mir-130b	1	DV080646
hsa-mir-639	11	DA578654,DB036923,BE163339,BX337999,BE173861,AW601441,AW601462,AW602622,AW602643,BE076002,BG978956
hsa-mir-155	1	BG058739
hsa-mir-632	3	BF739929,BF986402,BG005263
hsa-mir-365-2	1	AA682513
hsa-mir-423	1	AW001018
hsa-mir-324	1	AA428344
hsa-mir-565	1	DC404319
hsa-mir-564	4	AL532442,AL532442,AL532442,AL532442
hsa-mir-124a-	1	BU738550
hsa-mir-675	7	AL571290,AL571212,AL571290,AL571290,AL564130,AL564130,AL564130
hsa-mir-196b	2	BQ923616,BM549446
hsa-mir-24-1	1	CB852241
hsa-mir-637	5	AI203861,AW974502,AA768246,AW974502,AW974502
hsa-mir-636	24	AI890310,BX434220,BU608163,CA306910,AW316782,CB241746,CA420551,CA423953,AL581513,BI012130,BI084978,BU168060,BU628861,CA420567,CD367228,BX453763,BI010983,BU624553,BX434220,BX434220,CB241746,AI890310,BX434220,DB205468
hsa-mir-611	4	AA602796,BQ130146,DV461029,AW104310
hsa-mir-25	6	BE077684,BQ377098,BQ377098,BE077684,BE077684,BE077684
hsa-mir-328	20	BM792516,BE868797,BI092635,BI260928,BQ706797,CA488307,CD243179,BM853445,BM789033,BX390378,BI092635,BX390378,BM792516,BQ706797,BE868797,BM853445,CA488307,CD243179,BI260928,BM789033
hsa-mir-367	28	BG499366,BQ217140,H43466,BM796975,AA451825,BF790426,BG431297,BG898445,BM853135,BU854431,BX488044,CB146063,CB162796,CN346204,DT218636,W49839,W39691,CB135486,BQ920803,AA160180,AA372829,BF701214,CN419691,BU787911,BE748087,AV714955,BE748087,W39691
hsa-mir-372	1	DB443882
hsa-mir-133a-	4	AA211717,DB330925,AA211717,AA211717
hsa-mir-15a	3	BM272203,AW976277,AW976277
hsa-mir-126	22	BX380871,BX397999,BX397999,BX380871,BX397999,BX380439,BX340281,BX397999,BX397999,BX380439,BX381730,BX381730,BX380040,BX381730,BX380871,BX381730,BX380782,BX459190,BX380439,BX380871,BX381730,BX397999
hsa-mir-141	4	AI695443,AA863389,AA863395,AI969882
hsa-mir-205	15	BG989285,AA627916,AI969511,AW275818,AW275825,AW662302,BU732467,CN478782,DB313077,W68529,H25944,AI800001,BM980083,BU676846,CB048050
hsa-mir-191	5	BU594868,BQ645068,BQ652614,BQ646652,BQ647682

Intronic miRNAs (anti-sense)

hsa-mir-662, hsa-mir-302c, hsa-mir-199a-1, hsa-mir-302b, hsa-mir-181a-2, hsa-mir-1-2, hsa-mir-324, hsa-mir-194-1, hsa-mir-16-2, hsa-mir-599, hsa-mir-486, hsa-mir-570, hsa-mir-631, hsa-mir-610, hsa-mir-328, hsa-mir-181b-2, hsa-mir-367, hsa-mir-133a-1, hsa-mir-215, hsa-mir-548d-2, hsa-mir-15b, hsa-mir-302a, hsa-mir-214, hsa-mir-199a-2, hsa-mir-199b, hsa-mir-302d, hsa-mir-549, hsa-mir-191

Table S1: Anti-sense transcripts near known miRNAs (continued)**Mouse miRNAs**

miRNA	#transcripts	Transcript IDs
RefSeq Genes		
mmu-mir-136	3	NM_184109,NM_184109,NM_184109
mmu-mir-127	2	NM_184109,NM_184109
mmu-mir-433	2	NM_184109,NM_184109
mmu-mir-434	2	NM_184109,NM_184109
mmu-mir-367	2	NM_138593,NM_138593
mmu-mir-762	3	NM_009746,NM_009746,NM_009746
mmu-mir-328	4	NM_172760,NM_172760,NM_172760,NM_172760
mmu-mir-135a-1	2	NM_001039586,NM_174846
mmu-mir-431	2	NM_184109,NM_184109
ESTs		
mmu-mir-760	1	BY724041
mmu-mir-219-2	1	BQ174353
mmu-mir-684-1	13	DV073242,BQ174174,AW537749,BE630457,CF578937,AU019690,AW912686_dup1,BF138984,BF138984,EH106532_dup1,EH106867_dup1,BB368041,BE630457
mmu-mir-320	2	AI317636,AU067584
mmu-let-7a-1	2	CA895946,CA895946
mmu-let-7b	6	BX634634,BE990520,BE691213,BP758973,AI481799,AI551238
mmu-mir-410	9	BQ175773,CO039417,CO039417,CO039417,CO039417,CO039417,BQ175773,CO039417,CF586444
mmu-mir-703	69	AW475773,BM569675,BQ829508,AA408019,AW549861,BG061776,BM222193,AW323039,BM202365,CK619245,BM208748,BM209549,BM244993,BQ942052,BQ829508,AW549861,AW323039,BM569675,AA408019,AW475773,BG061776,BM222193,AI037476,BM202365,BM200056,BM235396,BI557490,BQ829508,AI037476,CK619245,AW549861,AI037476,BM202365,AW323039,BM569675,BQ829508,BM200056,BM209549,BM235396,BM244993,BM208748,BQ942052,AI894192,BM241195,BQ829508,BM203696,BM293715,BM293715,BM200056,BM235396,BM202365,BM209549,BM244993,BM569675,AW323039,BM22193,AI037476,BQ942052,CK619245,AA408019,AI894192,AW475773,BG061776,BM203696,BM208748,BM241195,BQ829508,BM293715,AW323039
mmu-mir-719	3	BF319694,BF319694,BF319694
mmu-let-7c-2	1	CX730031
mmu-mir-692-1	1	EH109725_dup1
mmu-mir-762	48	CB590046,BF123867,CB057904,AA219888,BI794412,AA015463,CF583785,BP761456,CB522109,BG247738,BY011013,CB574482,CO806265,CA321672,BQ712754,BQ945556,CB193807,CA464583,BE336140,BX516469,CB057430,BY311097,BY323578,CJ174327,CJ184526,BU935799,BY335256,BU936524,CF550740,CO800690,CO798695,BQ930905,CK792708,BE553370,CB182304,AV445615,BQ928058,BB651583,CA977612,BF123867,AA015463,DV651350,BY022716,BF123867,AA015463,AA929912,BF123867,AA929912

mmu-mir-124a-1	1	EL608186
mmu-mir-133a-2	1	CR517796
mmu-mir-484	3	BI688308,BB628323,BI688308
mmu-mir-370	2	BG870188,BG870188
mmu-mir-127	2	AW060983,BF461489
mmu-mir-299	2	CF578713,BI319615
mmu-mir-195	1	BB469543
mmu-mir-107	1	DT918023
mmu-mir-205	1	BX636072
mmu-mir-715	36	CN677041,CA540888,CA542066,CN675294,AV459680,BI441300,BI789633,CF899888,CD551120,CD553916,CD549707,BI441208,CD565318,CD553951,CA546775,CF902843,CA546648,AV488839,AV458300,CA949213,BI659171,BI690957,BI659626,AV468375,AA538360,BI100293,AA538360,CA949213,BI100293,BG146738,W42347,AV459680,W42347,AV459680,AV459680,AV458300
mmu-mir-130b	2	BF318156,AI550467
mmu-mir-324	1	CK619771
mmu-mir-675	12	BG228779,CR757130,CR757163,CR757130,CR757163,BG228779,BG228779,CR757130,CR758026,CR756565,CR757086,CR758028
mmu-mir-367	12	AA408246,CO795279,BU610513,BG802296,BF160578,CA857540,BM946683,BU525549,CF534412,CO814744,CV561292,DV657845
mmu-mir-682	5	EH111758,BB646391,BF018818,BF018908,BQ033113_d up1
mmu-mir-153	1	BU921583
mmu-mir-101a	2	BX638239,BF318343
mmu-mir-296	1	BE990102
mmu-mir-700	1	AA028433
mmu-mir-129-2	1	CR519766
mmu-mir-704	4	BM519373,BM519462,BM519384,BM519373
mmu-mir-29b-2	2	AA184398,AI591965
mmu-mir-411	5	CF578713,CF578713,CF578713,CF578713,CF578713
mmu-mir-671	23	BG067525,BP766107,AW060945,BF020189,BP764469,C86598,BP763209,AW744648,CD741762,AI551231,AI551231,AW413604,AI551231,BF320330,BE993040,BM197793,BF458705,BE690893,AI551231,BF455885,C86598,BX638041,AW046089
mmu-mir-23b	2	AI848465,AW124037
mmu-mir-804	3	BY707319,BY707319,BX521364
mmu-mir-142	3	BE136127,AW909330,BE136127
mmu-mir-328	23	BY766110,CB950291,BF159242,BE569617,BF123539,BG865727,BI691021,BF159242,BG865727,BF123539,BG865727,BE569617,BF159242,BI691021,BY766110,CB950291,AA266420,AI466854,BG865727,BG865727,BG865727,BG865727,BG865727
mmu-mir-135a-1	5	CB948426,BQ256452,BF780995,BF452753,BY105899
mmu-let-7d	3	BF662590,BQ031149,AI591449
mmu-mir-677	4	CK725393,BE859594,BG794909,EL605651
mmu-mir-713	1	BY019942
mmu-mir-29c	8	AA184398,AI591965,CO042247,BF465648,AW456678,BE944441,EH094197,AW494050
mmu-mir-21	5	BP774280,EH103036,EH105192,DT931951,DT931951
mmu-mir-339	1	BX629854

mmu-mir-692-2	97	BG090122,AI876713,AI120525,C77615,BQ265350,BP771591,BM570058,AW212806,AW208734,C76709,EG563506,AU042028,BQ264923,C81314,C85950,AU041056,BM198032,AU018935,AI042821,C85307,AW259615,AW742780,AA066642,AU021287,BG090001,BF319101_dup1,BM199052,BF148348,C80431,BF148348,BF148348,AI503783,AA066642,BP769370,AA066642,AI837703,AA066642,AA066642,BM199579,BM210661,AA086583,AI386321,AA086583,AW212806,CF583084,AA086583,AA086583,AA066642,AI839982,AA086583,BP769370,BM116361,AA086583,AA086583,BF148625,BM196958,BF146594,AA542429,AA561457,BM199549,BM199547,BQ264923,BM198032,BM198037,AA760480,BM199059,BM199182,BF319100,BP774123,BM199052,BG146514,AA542429,AA542429,BM202444,AA542429,AA760480,AA561457,AA542429,AI837703,BM199579,BM210661,CD741947,AA086583,AA561457,AI386321,AA086583,EH109725,AA086583,BQ128462,AA086583,AA542429,AI839982,AA086583,BM116361,AA086583,BP774123,AA086583
mmu-mir-689-1	5	AW211456,AW211456,AW211456,AW211456,AW211456
mmu-mir-138-2	1	AI854067
mmu-mir-685	9	AA176001,AA177668,BE335968,BE335968,AA176001,AA177668,AA176001,AA177668,BE335968
mmu-mir-137	3	AI852436,EL607439,BX638046
mmu-mir-678	30	AI504737,AI851123,AI845257,BE954206,CD774044,AW321042,AW541993,BM114883,BE993523,AI852462,CA889352,CA882196,BM227453,CA881388,BM021608,BM226267,C87892,CF582154,EH094417,EH101496,EH102235,EH106884,AA152773,AA152782,AA152773,AA152773,EH094419,AA152773,AA152773,AA152782
mmu-mir-763	1	CF578614
mmu-mir-214	7	BX631348,AI414009,CA774438,AI414009,BQ418332,AI414009,CA947318
mmu-mir-705	3	BX636473,AW046224,CF585469
mmu-mir-702	2	AI647501,AI647501
mmu-mir-431	2	AA048217,BQ127396
mmu-mir-181b-2	4	BI319432,CJ065621,CJ065471,BI319432
mmu-mir-686	32	AW539968,AI848457,AW543310,AW557943,AW541849,BE200146,BM203159,AU045989,BF722037,AW492012,BQ126981,BQ268530,BE952271,BG228853,BG093897,AU021597,AW539968,AU021597,AW541849,AU021597,AU021597,AU045989,AU021597,AU045989,AU021597,BE952271,BE952271,BE952271,BE952271,BG093897,BG093897
mRNAs		
mmu-mir-29c	1	AK081202
mmu-mir-207	1	AK139286
mmu-mir-29b-2	1	AK081202
mmu-mir-671	1	AK158019
mmu-mir-715	2	BC116307,BC131795
mmu-mir-762	6	Y11905,BC058530,AK131935,BC005673,AK049064,Y11905
mmu-mir-685	6	BC128280,BC128469,BC128470,BC128280,BC128469,BC128470
mmu-mir-804	1	AK007228
mmu-mir-328	10	AK037067,AK157875,BC018516,BC026617,BC058752,AK037067,AK157875,BC018516,BC026617,BC058752

mmu-mir-135a-1	5	AK052709,BC025935,BC036136,BC033063,AK049425
mmu-mir-484	1	AK035704
mmu-mir-181b-2	1	AK082091
spliced ESTs		
mmu-mir-704	4	BM519373,BM519462,BM519384,BM519373
mmu-mir-320	2	AI317636,AU067584
mmu-mir-410	9	BQ175773,CO039417,CO039417,CO039417,CO039417,CO039417,BQ175773,CO039417,CF586444
mmu-mir-719	3	BF319694,BF319694,BF319694
mmu-let-7c-2	1	CX730031
mmu-mir-762	46	CB590046,BF123867,CB057904,AA219888,BI794412,AA015463,CF583785,BP761456,CB522109,BG247738,BY011013,CB574482,CO806265,CA321672,BQ712754,BQ945556,CB193807,CA464583,BE336140,BX516469,CB057430,BY311097,BY323578,CJ174327,CJ184526,BU935799,BY335256,BU936524,CF550740,CO800690,CO798695,BQ930905,CK792708,BE553370,CB182304,AV445615,BQ928058,BB651583,CA977612,BF123867,AA015463,BF123867,AA015463,AA929912,BF123867,AA929912
mmu-mir-804	3	BY707319,BY707319,BX521364
mmu-mir-328	23	BY766110,CB950291,BF159242,BE569617,BF123539,BG865727,BI691021,BF159242,BG865727,BF123539,BG865727,BE569617,BF159242,BI691021,BY766110,CB950291,AA266420,AI466854,BG865727,BG865727,BG865727,BG865727,BG865727
mmu-mir-484	3	BI688308,BB628323,BI688308
mmu-mir-677	4	CK725393,BE859594,BG794909,EL605651
mmu-mir-713	1	BY019942
mmu-mir-195	1	BB469543
mmu-mir-367	12	AA408246,CO795279,BU610513,BG802296,BF160578,CA857540,BM946683,BU525549,CF534412,CO814744,CV561292,DV657845
mmu-mir-675	5	CR757130,CR757163,CR757130,CR757163,CR757130
mmu-mir-678	7	CD774044,CA881388,EH094417,EH101496,EH102235,EH106884,EH094419
mmu-mir-137	3	AI852436,EL607439,BX638046
mmu-mir-700	1	AA028433
mmu-mir-702	2	AI647501,AI647501
mmu-mir-686	26	AW539968,AI848457,AW543310,AW557943,AW541849,BE200146,BM203159,AU045989,BF722037,AW492012,BQ126981,BQ268530,BE952271,BG228853,BG093897,AW539968,AW541849,AU045989,AU045989,BE952271,BE952271,BE952271,BE952271,BG093897,BG093897

Intronic miRNAs (anti-sense)

mmu-mir-684-1, mmu-mir-199a-1, mmu-mir-133a-1, mmu-mir-486, mmu-mir-703, mmu-mir-1-2, mmu-mir-181a-2, mmu-mir-297-2, mmu-mir-215, mmu-mir-804, mmu-mir-328, mmu-mir-199a-2, mmu-mir-484, mmu-mir-194-1, mmu-mir-324, mmu-mir-199b, mmu-mir-689-2, mmu-mir-214, mmu-mir-695, mmu-mir-181b-2

Table S1: Anti-sense transcripts near known miRNAs. Shown are known miRNAs from human, mouse, and Drosophila (col. 1), the number of anti-sense transcripts near these miRNAs (within 50nts) and their sequence identifiers. The transcripts are separated into genes, ESTs, and spliced ESTs as indicated. The table also contains a list of known miRNAs that are located in introns of host genes, which are transcribed in the opposite direction.

mmu-mir-34b chr9 50855792 50855875 -
GTGCTCGGTTGTAGCACTGTAATTTAGCTGATTTAGTGCCTGCTGACAACTCACTAACCCTGCCATCAAAAACAAGGCAC
((((((-(((.....(((.....(((.....(((.....))).....))).....))).....))).....))) (-34.10)
((((((-(((.....(((.....(((.....(((.....))).....))).....))).....))).....))) (-34.50)

ATGGCAGTGGAGTTAGTGATTGT 1 1
TGCCAGTGGAGTTAGTGATTGT 5 1
ATCACTAATCTCCACTGCCATCA 2 1
ATCACTAATCTCCACTGCCATCA 51 1
AATCACTAATCTCCACTGCCATCA 17 1
TCACTAATCTCCACTGCCATCA 1 1
ATCACTAATCTCCACTGCCATCA 24 1
AATCACTAATCTCCACTGCCATCA 259 1
ATCACTAATCTCCACTGCCATCA 1 1
AATCACTAATCTCCACTGCCATCA 22 1
ATCACTAATCTCCACTGCCATCA 2 1
AATCACTAATCTCCACTGCCATCA 28 1
CAATCACTAATCTCCACTGCCATCA 1 1
CAATCACTAATCTCCACTGCCATCA 1 1
GGCAGTGAATTTAGCTGATTGTA 1 1
TAGGCAGTGAATTTAGCTGATTGTA 2 1
GTAAATTTAGCTGATTGT 1 1
GTGTAATTTAGCTGATTGT 3 1
AGTGAATTTAGCTGATTGT 6 1
AGGCAGTGAATTTAGCTGATTGT 638 1
TAGGCAGTGAATTTAGCTGATTGT 26 1
AGTGAATTTAGCTGATTGT 4 1
AGGCAGTGAATTTAGCTGATTGT 23 1
TAGGCAGTGAATTTAGCTGATTGT 117 1
TAGGCAGTGAATTTAGCTGATTGT 14 1
TAGGCAGTGAATTTAGCTGATTGT 1 1
TAGGCAGTGAATTTAGCTGATTGT 4 2

mmu-mir-182 chr6 30115928 30116002 -
ACCAATTTTGGCAATGGTGTAGAACTCACACCGTAAAGTAAATGGGACCCGGTGTCTAGACTTGCCCACTATGGT
((((((-(((.....(((.....(((.....(((.....))).....))).....))).....))).....))) (-29.14)
((((((-(((.....(((.....(((.....(((.....))).....))).....))).....))).....))) (-31.64)

GTTGGCAAGTCTAGAACCACCG 2 1
GTAAGGTAATGGGACCCG 43 1
TTTGGCAATGGTGAAGTCAACACCGGT 8 1
TTTGGCAATGGTGAAGTCAACACCGG 95 1
AATGGTGAAGTCAACACCG 40 1
GGCAATGGTGAAGTCAACACCG 4 1
TGGCAATGGTGAAGTCAACACCG 5 1
TTGGCAATGGTGAAGTCAACACCG 48 1
TTTGGCAATGGTGAAGTCAACACCG 11377 1
TTTTGGCAATGGTGAAGTCAACACCG 27 1
TGGCAATGGTGAAGTCAACACCG 3 1
TTTTGGCAATGGTGAAGTCAACACCG 1358 1
TTGGCAATGGTGAAGTCAACACCG 11 1
TTTTGGCAATGGTGAAGTCAACACCG 2295 1
TTGGCAATGGTGAAGTCAACACCG 4 1
TTTTGGCAATGGTGAAGTCAACACCG 1734 1
TTGGCAATGGTGAAGTCAACACCG 1 1
TTTTGGCAATGGTGAAGTCAACACCG 1024 1
TTTTGGCAATGGTGAAGTCAACACCG 250 1
TTTTGGCAATGGTGAAGTCAACACCG 113 1
TTTTGGCAATGGTGAAGTCAACACCG 20 1
TTTTGGCAATGGTGAAGTCAACACCG 4 2

mmu-mir-203 chr12 112578688 112578763 +
GCCTGGTCCAGTGGTCTGTACAGTTCACAGTCTCTGTAGCACAATTTGTAATTTAGTGGACCTAGACCCGGC
((((((-(((.....(((.....(((.....(((.....))).....))).....))).....))).....))) (-35.60)
((((((-(((.....(((.....(((.....(((.....))).....))).....))).....))).....))) (-32.40)

TTGAACTGCAAGAACCCTAG 1 1
TTGAACTGCAAGAACCCTAG 1 1
TGGAATGTTTAGGACCCTAG 29 1
GTGAATGTTTAGGACC 1 3
GTGAATGTTTAGGACC 1 1
GTGAATGTTTAGGACC 1 1
GTGAATGTTTAGGACCCT 16 1
GTGAATGTTTAGGACCCTA 3 1
GTGAATGTTTAGGACCCTAG 223 1
GTGAATGTTTAGGACCCTAGA 11 1
TGAAATGTTTAGGACC 1 3
TGAAATGTTTAGGACCCTA 7 1
TGAAATGTTTAGGACCCTAG 130 1
TGAAATGTTTAGGACCCTAGA 17 1
GAAATGTTTAGGACCCTAG 1 1

mmu-mir-194-1 chr1 187014107 187014173 +
ATCGGGTGAACCACTCCATGGGAGTGTGCTGGATTTCCAGTGGAGCTGCTTACTTCTGAT
((((((-(((.....(((.....(((.....(((.....))).....))).....))).....))).....))) (-34.10)

CACATGGAGTTGCTGTACAC 3 1
TGTAACGCAACTCCATGTGG 104 2
TGTAACGCAACTCCATGTGG 1 1

Table S3: Solexa reads matching sense/anti-sense miRNA pairs**Drosophila miRNAs**

Read Sequence	#cloned/sequenced	#matches to genome	miRNA matches	miRNA anti-sense matches
TTACGTATACTGAAGGTAT	8	1		dme-mir-iab-4
TGCACTTGAGACGGCCTGA	2	1	dme-mir-312	
TTACGTATACTGAAGGTATACCG	2	1		dme-mir-iab-4
TATTGCACTTGAGACGGCCTGA	3027	1	dme-mir-312	
TTGCACTTGAGACGGCCTGA	4	1	dme-mir-312	
TTGCACTTGAGACGGCCTGAT	1	1	dme-mir-312	
ACGTATACTGAATGTATCCTG	1	1	dme-mir-iab-4	
ATTGCCCTTGAGACGAAACCAAT	2	1		dme-mir-312
TATTGCACTTGAGACG	1	1	dme-mir-312	
TATTGCACTTGAGACGGCCTGATT	4	1	dme-mir-312	
TGGTTCGTCACAAGGGCAATTCT	151	1	dme-mir-312	
TTACGTATACTGAAGGTATAC	2	1		dme-mir-iab-4
TTGCACTTGAGACGGCCTG	1	1	dme-mir-312	
CGGTATACCTTCAGTATACG	1	1	dme-mir-iab-4	
TATTGCACTTGAGACGGCC	34	1	dme-mir-312	
TGGTTCGTCACAAGGGC	1	1	dme-mir-312	
TGGTTCGTCACAAGGGCAA	17	1	dme-mir-312	
TTACGTATACTGAAGGTATACC	4	1		dme-mir-iab-4
TGGTTCGTCACAAGGGCA	6	1	dme-mir-312	
TATTGCACTTGAGACGGCCTGAT	94	1	dme-mir-312	
TATTGCACTTGAGACGGC	27	1	dme-mir-312	
ACGTATACTGAATGTATCCTGA	5	1	dme-mir-iab-4	
TTACGTATACTGAAGGTATACCGG	1	1		dme-mir-iab-4
TGGTTCGTCACAAGGGCAATT	90	1	dme-mir-312	
TATTGCACTTGAGACGGCCT	225	1	dme-mir-312	
CACCTTGAGACGGCCTGA	1	1	dme-mir-312	
TGGTTCGTCACAAGGGCAATTCT	66	1	dme-mir-312	
TATTGCACTTGAGACGGCCTG	1165	1	dme-mir-312	
ATTGCACTTGAGACGGCCTG	3	1	dme-mir-312	
ATTGCACTTGAGACGGCCTGAT	6	1	dme-mir-312	
TGCACTTGAGACGGCCT	2	1	dme-mir-312	
TGGTTCGTCACAAGGGCAAT	44	1	dme-mir-312	
ATTGCACTTGAGACGGCCTGA	18	1	dme-mir-312	

Table S3: Solexa reads matching sense/anti-sense miRNA pairs**Mouse miRNAs**

Read Sequence	#cloned/sequenced	#matches to genome	miRNA matches	miRNA anti-sense matches
GTAGGTTGTATGGTT	4	5	mmu-let-7c-2	
ACAGTGGCTAAGTTCT	7	4	mmu-mir-27b	
CAATCACTAACTCCACTGCC	1	1	mmu-mir-34b	
GCACCATTTGAAATCAGTGTT	39	2	mmu-mir-29b-2	
ACTTAGCAGGTTGATTATCATT	1	1	mmu-mir-374	
GTAGTAGGTTGTATAGTT	21	2	mmu-let-7a-1	
AGTAGGTTGTATAGTTA	4	1		mmu-let-7b
AGTAGGTTGTATAGTTT	1	2	mmu-let-7a-1	
CGTACCGTGAGTAATAATGCG	561	1	mmu-mir-126	
AGTAGGTTGTATAGGTT	8	3	mmu-let-7c-2	
TGGAATGTAAGAAGATATGAT	45	2	mmu-mir-1-2	
TCGTACCGTGAGTAATAAT	25	1	mmu-mir-126	
CAGAGCTTAGCTAGTTGGTGAACA	19	1	mmu-mir-27b	
TGAGGTAGTAGGTTGTATGGTT	198548	2	mmu-let-7c-2	
AGGTAGTAGGTTGTGTGGTT	44	1	mmu-let-7b	
TAGCACCATTTGAAATC	6	3	mmu-mir-29b-2	
CACCATTGAAATCAGTG	4	3	mmu-mir-29b-2	
GTAGTAGGTTGTGTGGT	1	1	mmu-let-7b	
CGCGTACCAAAAGTAATAATGT	1	1		mmu-mir-126
CTCGTACCGTGAGTAATAATGC	26	1	mmu-mir-126	
TGAGGTAGTAGGTTGTGTG	1041	1	mmu-let-7b	
GGCAATGGTAGAACTCACACCG	4	1	mmu-mir-182	
GCTGGTTTACATGGTGGCTTAGA	2	1	mmu-mir-29b-2	
TGAGGTAGTAGGTTGTATGG	1404	2	mmu-let-7c-2	
AGAGCTTAGCTGATTGGTGAACA	274	1	mmu-mir-27b	
TATACAATCTACTGCTTTC	2	2	mmu-let-7a-1;mmu-let-7c-2	
TTTTGGCAATGGTAGAACTCACACCG	27	1	mmu-mir-182	
GTGAAATGTTAGGACCACTA	3	1	mmu-mir-203	
TTTTGGCAATGGTAGAACTCA	250	1	mmu-mir-182	
CTATACAATCTACTGCTTTC	218	2	mmu-let-7a-1;mmu-let-7c-2	
TGGCAGTGGAGTTAGTGATTGT	5	1		mmu-mir-34b
CACCATTGAAATCAGTGTT	13	2	mmu-mir-29b-2	
TCGTACCGTGAGTAATAATG	101	1	mmu-mir-126	
CTCGTACCGTGAGTA	1	1	mmu-mir-126	
AGTAGGTTGTATAGGTTT	2	2	mmu-let-7c-2	
TCCTGACTGAGCTGCCCG	11	2	mmu-mir-486	
TAGCACCATTTGAAAT	6	6	mmu-mir-29b-2	
CGGGGCAGCTCAGTACAGGAT	46	1		mmu-mir-486
ATTTGAAATCAGTGTTT	1	4	mmu-mir-29b-2	
CTCGTACCGTGAGTAAT	1	1	mmu-mir-126	
ACAGTGGCTAAGTTCTG	25	3	mmu-mir-27b	
TGAGGTAGTAGGTTGTATAGTTT	54	1	mmu-let-7a-1	
AGGCAGTGAATAGCTGATTG	23	1	mmu-mir-34b	
TGTGAAATGTTTAGGACCACTAG	29	1	mmu-mir-203	
GGTAGTAGGTTGTATAGT	5	2	mmu-let-7a-1	
GTAATTAGCTGATTGT	1	1	mmu-mir-34b	
GTGAAATGTTAGGACCACTAGA	11	1	mmu-mir-203	
ACACGGACACCGCAGGG	6	1	mmu-let-7b	
TTTTGGCAATGGTAGAACTCACACC	1358	1	mmu-mir-182	
TGAAATGTTAGGACCACTA	7	1	mmu-mir-203	
AATCACTAACTCCACTGCCAT	22	1	mmu-mir-34b	
TTACACAGTGGCTAAGTTC	1294	2	mmu-mir-27b	
TTTGGCAATGGTAGAACTCAC	1024	1	mmu-mir-182	
ATGAGGTAGTAGGTTGTATAGTT	53	1	mmu-let-7a-1	
TTGGCAATGGTAGAACTCAC	1	1	mmu-mir-182	
ACCATTGAAATCAGTGTT	24	2	mmu-mir-29b-2	
TGAGGTAGTAGGTTGTATGGT	30009	2	mmu-let-7c-2	
CGTACCGTGAGTAATAATGCGC	3	1	mmu-mir-126	
GTAGTAGGTTGTGTGGTT	22	1	mmu-let-7b	
GAGGTAGTAGGTTGTATGGT	65	2	mmu-let-7c-2	
TTTTGGCAATGGTAGAAC	4	2	mmu-mir-182	
AGTAGGTTGTGTGGTTT	20	1	mmu-let-7b	
ATATAATACAACCTGCTAAGTGT	91	1	mmu-mir-374	
TCAGCACCAAGGATATTGTGGGG	1	1		mmu-mir-338
TTAGGGTCACACCCACTGGG	1	1	mmu-let-7a-1	
TGAGGTAGTAGGTTGTGTGGT	34985	1	mmu-let-7b	
GAGGTAGTAGGTTGTGTGGT	104	1	mmu-let-7b	
CAGTGGCTAAGTTCTGC	3	2	mmu-mir-27b	
CTATACAATCTACTGCTTTCCT	8	2	mmu-let-7a-1;mmu-let-7c-2	
CTAGCACCATTTGAAATCAGTGTT	335	2	mmu-mir-29b-2	
CATCAGTGATTTTGTG	1	1	mmu-mir-338	
AGAGCTTAGCTGATTGGTGAAC	87	1	mmu-mir-27b	
TGGAATGTAAGAAGATATGT	1	2	mmu-mir-1-2	
GGTAGTAGGTTGTATAGTTT	2	2	mmu-let-7a-1	
ACAGTGGCTAAGTTC	2	13	mmu-mir-27b	
TGAGGTAGTAGGTTGTGTGGTTTCAGGG	1	1	mmu-let-7b	
GTAAGGTAATGGGACCCG	43	1	mmu-mir-182	
TTACAAGCCCATACACTTT	35	1	mmu-mir-350	
CATTATTACTTTGGTACGC	781	1	mmu-mir-126	
TCACAGTGGCTAAGTTCTGCA	2	1	mmu-mir-27b	
TAGTAGGTTGTATAG	1	4	mmu-let-7a-1	
TCCAGCATCAGTGATTTGTGGT	15	1	mmu-mir-338	

CCATTGAAATCAGTGT	15	2	mmu-mir-29b-2	
TTGAACTGCAAGAACCACT	1	1		mmu-mir-203
ATCTAGCACCAATTTGAAATCAGTGT	4	1	mmu-mir-29b-2	
CACAGTGGCTAAGTTCTGCA	1	1	mmu-mir-27b	
CTAGCACCAATTTGAAATCAGTGT	126	2	mmu-mir-29b-2	
TAGCACCAATTTGAAATCAGTGT	5	1	mmu-mir-29b-2	
CACATGGAGTTGCTGTACAC	3	1		mmu-mir-194-1
AATGGTAGAACTCACACCG	40	1	mmu-mir-182	
TGAAATGTTTAGGACCA	1	3	mmu-mir-203	
AGTAGGTTGATAGT	1	9	mmu-let-7a-1	mmu-let-7b
TAGCACCAATTTGAAATCAGTGT	80418	2	mmu-mir-29b-2	
CCGTGAGTAATAATGC	1	1	mmu-mir-126	
GGTAGTAGGTTGTATGGTT	1	2	mmu-let-7c-2	
TAGCACCAATTTGAAATCAGTGT	20749	2	mmu-mir-29b-2	
ATCACTAACTCCACTGCCATCA	51	1	mmu-mir-34b	
GCACCAATTTGAAATCAGTGT	14	2	mmu-mir-29b-2	
GGCAGTGAATTAGCTGATTGA	1	1	mmu-mir-34b	
TTACAAGCCCATACACTTTAC	145	1	mmu-mir-350	
TCCAGCATCAGTGATTTTG	1	1	mmu-mir-338	
TGAGGTAGTAGGTTGTATGGTTTTGGG	1	1	mmu-let-7c-2	
AAAGTGCATGCGCTTTGGG	8	1	mmu-mir-350	
TGAGGTAGTAGGTTG	6	10	mmu-let-7a-1;mmu-let-7c-2;mmu-let-7b	
GGTAGTAGGTTGTATAGTT	35	2	mmu-let-7a-1	
CTATAACAACCTACTGCCTTC	15	1	mmu-let-7b	
TAGTAGGTTGTATAGTT	6	2	mmu-let-7a-1	
TAATAACAACCTGCTAAGTG	1	2	mmu-mir-374	mmu-mir-374
AAAGTGCATGCGCTTTGGGA	66	1	mmu-mir-350	
GAGGTAGTAGGTTGTATGGTT	681	2	mmu-let-7c-2	
TTACAGTGGCTAAGTT	109	3	mmu-mir-27b	
AACACGGACACCGCAGGG	1	1	mmu-let-7b	
TTAGGGTACACCCCACTGGGAGATAA	28	1	mmu-let-7a-1	
GCTGGTTTACATGGTGGCTTAGATT	1	1	mmu-mir-29b-2	
TCAACAAATCACTGATGCTGGAGT	11	1		mmu-mir-338
TGTAACAGCAACTCCATGTGGA	104	2	mmu-mir-194-1	
TATAATAACAACCTGCTAAGT	4	1	mmu-mir-374	
ACCATTGAAATCAGTG	1	5	mmu-mir-29b-2	
CTGGTTTACATGGTGGCTTAG	4	1	mmu-mir-29b-2	
CGTACCGTAGTAATAAT	3	1	mmu-mir-126	
AGAGCTTAGCTGATGGTGAA	65	1	mmu-mir-27b	
TAGTAGGTTGTATAGTT	150	2	mmu-let-7a-1	
CATTATTACTTTGGTACGCGCTGTGA	1	1	mmu-mir-126	
TGAGGTAGTAGGTTGTATAGTTTTAGG	1	1	mmu-let-7a-1	
GGTAGTAGGTTGTATGGTT	1	1	mmu-let-7b	
TGGCAATGGTAGAACTCACACCG	5	1	mmu-mir-182	
GTAGGTTGTATAGTTA	7	3		mmu-let-7b
AGTTCAGGACAGCCAGGGCTATACAGAGA	1	19184	mmu-mir-706	
TAGTAGGTTGTATGGTT	2	2	mmu-let-7c-2	
CTAGCACCAATTTGAAATCAGT	15	2	mmu-mir-29b-2	
TGAGGTAGTAGGTTGTATGGTTTTGG	1	1	mmu-let-7c-2	
TTACCAATCAGCTAAGCTCTGC	1	1		mmu-mir-27b
TGGGTACATAAAGAAGTATGTGC	5	1		mmu-mir-1-2
AGGTAGTAGGTTGTATGGTT	25	2	mmu-let-7c-2	
TTACAAGCCCATACA	1	1	mmu-mir-350	
CAATCACTAACTCCACTGCCA	1	1	mmu-mir-34b	
ACAGTGGCTAAGTTCTGC	51	2	mmu-mir-27b	
TAGGTTGTGTGTTTTCAGGGCAGTGA	1	1	mmu-let-7b	
TTATTACTTTGGTACGC	2	1	mmu-mir-126	
TAGGCAGTGAATTAGCTGATTG	117	1	mmu-mir-34b	
CTTAGCAGGTTGTATTATCATT	114	1	mmu-mir-374	
TTTGGCAATGGTAGAACTCACACCG	11377	1	mmu-mir-182	
TAGTAGGTTGTATGG	1	4	mmu-let-7c-2	
CACAGTGGCTAAGTTCTGC	4	1	mmu-mir-27b	
AGATAACTATACAACCTACTGCCTTC	1	1	mmu-let-7b	
CATTATTACTTTGGTACGCGCTGTGACA	1	1	mmu-mir-126	
CTGGTTTACATGGTGGCTTAGA	15	1	mmu-mir-29b-2	
ATACAACCTGCTAAGTG	1	5	mmu-mir-374	mmu-mir-374
CCATTGAAATCAGTGT	6	2	mmu-mir-29b-2	
GGTAGTAGGTTGTATGGTT	4	1	mmu-let-7b	
TCGTACCGTAGTAATAATGC	658	1	mmu-mir-126	
TCACAGTGGCTAAGTTCTG	54	1	mmu-mir-27b	
CATTATTACTTTGGTACGCGCT	5	1	mmu-mir-126	
CGTACCGTAGTAATAATGC	240	1	mmu-mir-126	
TCTCTGTATAGCCCTGGCTGTC	1	25381		mmu-mir-706
GTGAAATGTTTAGGACCAC	1	1	mmu-mir-203	
TAGTAGGTTGTATGGTT	4	1	mmu-let-7b	
CAGTAGGTTGTATAGTT	1	1		mmu-let-7b
TCGTACCGTAGTAATAATGC	2	1	mmu-mir-126	
AGTGAATTAGCTGATTGT	6	1	mmu-mir-34b	
TCCTGTACTGAGCTGCCCC	1	2	mmu-mir-486	mmu-mir-486
TTTGGCAATGGTAGAACTC	113	1	mmu-mir-182	
TTGGCAATGGTAGAACTCACAC	11	1	mmu-mir-182	
CTATACAATCTACTGCTTTCC	102	1	mmu-let-7a-1;mmu-let-7c-2	
TAGTAGGTTGTATGGTT	5	1	mmu-let-7b	
TAGTAGGTTGTATGGT	24	4	mmu-let-7c-2	
GAGGTAGTAGGTTGTATGGTT	120	2	mmu-let-7c-2	
TCCTGTACTGAGCTGCCCGAGC	3	1	mmu-mir-486	
TCCTGTACTGAGCTGCCCGAGG	1	1		mmu-mir-486
GTAGTAGGTTGTATGGTT	5	2	mmu-let-7c-2	
TCACTAACTCCACTGCCATC	1	1	mmu-mir-34b	

CATTACTTTTGGTACGCG	44	1	mmu-mir-126
TGAAATGTTTAGGACCACTAGA	17	1	mmu-mir-203
TGAGGTAGTAGGTTGTATA	95	2	mmu-let-7a-1
TGAGGTAGTAGGTTGTATG	381	2	mmu-let-7c-2
TGGTTTCACATGGTGGCTTAGA	2	1	mmu-mir-29b-2
TTGGCAATGGTAGAACTCACACCG	48	1	mmu-mir-182
CATTTGAAATCAGTGT	5	6	mmu-mir-29b-2
GTACCGTGAGTAATAATGC	1	1	mmu-mir-126
CTAGCACCAATTTGAAATCAGTG	30	2	mmu-mir-29b-2
CTAGCACCAATTTGAAATCAG	2	2	mmu-mir-29b-2
GTTTCACAGTGGCTAAGTTCT	64	1	mmu-mir-27b
TTTGGCAATGGTAGAACTCACACCGGT	8	1	mmu-mir-182
AGGTAGTAGGTTGTATGGT	16	2	mmu-let-7c-2
GGTAGTAGGTTGTATA	1	2	mmu-let-7a-1
TAGCACCAATTTGAAATCAGT	265	2	mmu-mir-29b-2
TGAGGTAGTAGGTTGTGTGG	1351	1	mmu-let-7b
TATTACTTTTGGTACGCG	1	1	mmu-mir-126
AGTAGGTTGTATAGTT	41	3	mmu-let-7a-1
ATGAGGTAGTAGGTTGTATAGT	5	1	mmu-let-7a-1
TGAGGTAGTAGGTTGTATAGTT	66680	2	mmu-let-7a-1
TAGTAGGTTGTGTGGT	22	1	mmu-let-7b
CATTACTTTTGGTACG	41	1	mmu-mir-126
TGAGGTAGTAGGTTGT	53	8	mmu-let-7a-1;mmu-let-7c-2;mmu-let-7b
ATCTATCTATCTATCTATC	2	212505	
CATTTGAAATCAGTGT	44	3	mmu-mir-29b-2
AATCACTAACTCCACTGCCA	28	1	mmu-mir-34b
CGGGGCAAGCTCAGTACAGGATG	56	1	
AGTAGATTGTATAGTT	11	5	mmu-mir-486
ATCACTAACTCCACTGCCATCAA	2	1	mmu-let-7a-1;mmu-let-7c-2
TACCGTGAGTAATAATGCG	1	1	mmu-mir-34b
AAACCAGTCCAGAAG	1	3	mmu-mir-126
AGGTAGTAGGTTGTATGGTTT	7	2	mmu-mir-29b-2
AGTGAATTAGCTGATTG	4	1	mmu-let-7c-2
TGGAATGTAAGAAAGATGTA	2	2	mmu-mir-34b
GAGGTAGTAGGTTGTGTGGTTT	11	1	mmu-mir-1-2
GTGTAATTAGCTGATTGT	3	1	mmu-let-7b
CGGGGCAAGCTCAGTACAGGA	1	2	mmu-mir-34b
AGCACCAATTTGAAATCAGTGT	3	2	mmu-mir-486
TAGCACCAATTTGAAATCAG	45	2	mmu-mir-29b-2
TTCAACAAGCCCATACACTTTC	190	1	mmu-mir-29b-2
AGGTAGTAGGTTGTGTGGT	6	1	mmu-mir-350
GGTGAGGTAGTAGGTTGTAT	1	1	mmu-let-7b
GAGGTAGTAGGTTGTATGGTTT	2	1	mmu-let-7c-2
TCCTGTACTGAGCTGCCCGA	66	2	mmu-let-7c-2
TAATACAACCTGCTAAGTGT	1	1	mmu-mir-486
TGAGGTAGTAGGTTGTATAGT	7590	2	mmu-mir-486
GAGGTAGTAGGTTGTATAGT	14	2	mmu-mir-374
TTTGAATCAGTGT	1	21	mmu-let-7a-1
TTCAACAAGCCCATACACTT	4	1	mmu-let-7a-1
GAACACGGACACCCGACGGG	2	1	mmu-mir-29b-2
CTGGTTTCACATGGTGGCTTAGATTTT	2	1	mmu-let-7b
TTGGGCTCTGCCCGCTCTGCGGTAA	21	1	mmu-mir-29b-2
ATTTGAATCAGTGT	12	8	mmu-let-7c-2
TAGGCAGTGTAATTAGCTGATT	14	1	mmu-mir-29b-2
ATATAATACAACCTGCTAAGT	603	1	mmu-mir-34b
GTGAGGTAGTAGGTTGTATGGTT	1	1	mmu-mir-374
GGTAGTAGGTTGTATGGT	2	1	mmu-let-7c-2
CATTACTTTTGGTACGCG	786	1	mmu-let-7c-2
ATGGCAGTGGAGTTAGTGATTGT	1	1	mmu-mir-126
TTTGGCAATGGTAGAACTCACACA	1734	1	mmu-mir-182
GTAGGTTGTGTGGTT	2	3	mmu-let-7b
ACCATTGAAATCAGTGT	9	2	mmu-mir-29b-2
TGGCAATGGTAGAACTCACACC	3	1	mmu-mir-182
CTCGTACCCTGAGTAATAATGCG	11	1	mmu-mir-126
TTCAAGTGGCTAAG	2	20	mmu-mir-27b
AGGTAGTAGGTTGTGTGGTTT	3	1	mmu-let-7b
AGTGGCTAAGTTCTG	3	9	mmu-mir-27b
GTAGTAGGTTGTATGGTTT	1	2	mmu-mir-27b
AGTAGGTTGTGTGGTT	2	1	mmu-let-7c-2
AGAGCTTAGCTGATTGGTGAACAG	19	1	mmu-let-7b
TGAGGTAGTAGGTTGTGTGGTT	136624	1	mmu-mir-27b
CACCAATTTGAAATCAGTGT	14	2	mmu-let-7b
ATAGATAGATAGATAGATA	4	210178	mmu-mir-29b-2
TAGGCAGTGTAATTAGCTGAT	1	1	mmu-mir-350
TGAGGTAGTAGGTTGTAT	327	4	mmu-mir-34b
TCGTACCCTGAGTAATAA	1	1	mmu-let-7a-1;mmu-let-7c-2
GTTTCACAGTGGCTAAGTTCTGC	188	1	mmu-mir-126
GTGAAATGTTAGGACCACT	16	1	mmu-mir-27b
CCGTGAGTAATAATGCG	2	1	mmu-mir-203
AGAGCTTAGCTGATTGGTGA	8	1	mmu-mir-126
TCCTGTACTGAGCTGCC	2	2	mmu-mir-27b
AACAATATCCCTGGTGCTGAGT	11	1	mmu-mir-486
CTGGTTTCACATGGTGGCTTAGAT	7	1	mmu-mir-338
TTTGGCAATGGTAGAACTCACACCGG	95	1	mmu-mir-29b-2
GAGGTAGTAGGTTGTATGG	4	2	mmu-mir-182
CTATACAACCTACTGCCTCCC	1	1	mmu-let-7c-2
TGAGGTAGTAGGTTGTAT	34	1	mmu-let-7b
TGAGGTAGTAGGTTGTG	14	1	mmu-let-7a-1;mmu-let-7c-2
TGGTTTCACATGGTGGCTTAGAT	1	1	mmu-let-7b
			mmu-mir-29b-2

TAGCACCATTGAAATCAGTGT	68	1	mmu-mir-29b-2
ATATAATACAACCTGCTAAG	28	1	mmu-mir-374
CATCTTTGCCGGTGACAGCA	7	1	mmu-mir-126
GTTCCAGGTGGCTAAGTTCTG	135	1	mmu-mir-27b
TTGAACTGCAAGAACCACTGG	1	1	
GTTGGCAAGTCTAGAACCCCG	2	1	mmu-mir-203
TTCAACAAGCCATACACTTTCA	188	1	mmu-mir-182
TGAGGTAGTAGGTTGTATAGTTTAGGG	1	1	mmu-mir-350
TCGTACCGTAGTAATAATGCG	1165	1	mmu-let-7a-1
TCCAGCATCAGTGATTTTGT	12	1	mmu-mir-126
CGTACCGTAGTAATAATG	28	1	mmu-mir-338
AGTGGCTAAGTTCTGCA	9	2	mmu-mir-126
ATTTGAAATCAGTGT	1	29	mmu-mir-27b
TGAGGTAGTAGGTTGTATAGTTT	1395	1	mmu-mir-29b-2
AATCACTAACTCCACTGCCATC	259	1	mmu-let-7c-2
GAGGTAGTAGGTTGTATGTTTTGG	2	1	mmu-mir-34b
ATCTATCTATCTATC	1	246025	mmu-let-7c-2
TAGGCAGTGTAATTAGCT	4	2	mmu-mir-350
ACTTAGCAGGTTGATATATCAT	3	1	mmu-mir-34b
GTAGTAGGTTGTGTGGTTT	1	1	mmu-mir-374
TGAGGTAGTAGGTTGTGTGGTTTCA	26	1	mmu-let-7b
GTGAGTTCACAGCAGCCAGGGCTATACA	1	19153	mmu-let-7b
TTACAGTGGCTAAGTTCTGC	32597	1	mmu-mir-706
TAGCACCATTGAAATCA	15	2	mmu-mir-27b
TGAGGTAGTAGGTTGTATAGTTT	2680	2	mmu-mir-27b
TCACAGTGGCTAAGTTCTGC	16	1	mmu-mir-29b-2
TTACAGTGGCTAAGTTCTGCAC	25	1	mmu-let-7a-1
CACAGTGGCTAAGTTCTG	5	1	mmu-mir-27b
AAAGTGCATGCGCTTTGGGACA	49	1	mmu-mir-27b
GTGAAATGTTAGGACCACTAG	223	1	mmu-mir-350
ATCTTTGCCGGTGACAGCA	4	1	mmu-mir-203
TTACAGTGGCTAAGTTCTG	12686	1	mmu-mir-126
TTGGCAATGGTAGAACT	20	1	mmu-mir-27b
CTAGCACCATTGAAATCA	1	2	mmu-mir-182
CCATTTGAAATCAGTGTTT	4	1	mmu-mir-29b-2
GGTAGTAGGTTGTATAGTTT	10	2	mmu-mir-29b-2
TGAGGTAGTAGGTTGTATAGTTT	1	1	mmu-let-7c-2
ATCACTAACTCCACTGCCATC	24	1	mmu-let-7a-1
TTTGGCAATGGTAGAACTCACAC	2295	1	mmu-mir-34b
AGTAGGTTGATGGT	1	6	mmu-mir-182
TTCTAGCACTAGCAGGTTGATATCATT	1	1	mmu-mir-29b-2
TCAGGGCAGTGATTTGCCCTCCGAAGAT	1	1	mmu-mir-374
TGAGGTAGTAGGTTGTGTGGTTTCAGGGCA	7	1	mmu-let-7b
CTTAGCAGGTTGATATATCAT	5	1	mmu-let-7b
GTGAAATGTTAGGAC	1	3	mmu-mir-374
TCCTGACTGAGCTGCCCCGAG	152	2	mmu-mir-203
TGAGGTAGTAGGTTGTATGTTTTGGGCT	1	1	mmu-mir-486
CTGGTTTCACATGGTGGCTTAGATT	7	1	mmu-let-7c-2
TTAGCAGGTTGATATCATT	1	1	mmu-let-7a-1
TGAGGTAGTAGGTTGTATGTTTT	27795	2	mmu-mir-29b-2
CCAACAATATCCTGGTGCTGA	2	1	mmu-mir-374
TCACAGTGGCTAAGTTC	1	4	mmu-let-7c-2
ATCACTAACTCCACTGCCAT	1	1	mmu-mir-27b
AGAGCTTAGCTGATTGGT	5	1	mmu-mir-34b
ACTATACAATCTACTGCTTTC	4	2	mmu-mir-27b
CTGGTTTCACATGGTGGCTTAGATT	6	1	mmu-let-7a-1;mmu-let-7c-2
GAGGTAGTAGGTTGTATAGTT	103	2	mmu-mir-29b-2
TAGTAGGTTGTATGTT	24	3	mmu-let-7a-1
AGGCAGTGAATTAGCTGATTGT	638	1	mmu-let-7c-2
ATATAATACAACCTGCTAAGTG	316	1	mmu-mir-34b
TGAGGTAGTAGGTTGTGTGGTTTCCAG	5	1	mmu-mir-374
TGAGGTAGTAGGTTGTATAG	1312	2	mmu-let-7b
TGAAATGTTTAGGACCACTAG	130	1	mmu-let-7a-1
TGAGGTAGTAGGTTGTGT	94	1	mmu-mir-203
GAAATGTTTAGGACCACTAG	1	1	mmu-let-7b
AATCACTAACTCCACTGCCATCA	17	1	mmu-mir-203
TTCAACAAAATCACTGATGCTGGAG	1	1	mmu-mir-34b
CTTAGCAGGTTGTATTA	3	3	mmu-mir-34b
TAGGCAGTGTAATTAGCTGATTGTA	2	1	mmu-mir-374
TAGCACCATTGAAATCAGTGTTT	844	1	mmu-mir-34b
TCCAGCATCAGTGATTTTGT	25	1	mmu-mir-29b-2
TGAGGTAGTAGGTTGTATGTTTTG	4	1	mmu-mir-338
CTGACTTCGGCCCCCATGTCAGCAGATGC	1	143	mmu-let-7c-2
TCCTTTGCCGGTGACAGCA	6	1	mmu-mir-680-1;mmu-mir-680-2
TTAGGGTCACACCCACTGGGAGAT	6	1	mmu-mir-126
CTATAAATCTACTGCTTTC	241	2	mmu-let-7a-1
ATATAATACAACCTGCTAA	5	1	mmu-let-7a-1;mmu-let-7c-2
ATAATACAACCTGCTAAGTGT	1	1	mmu-mir-374
TCCAGCATCAGTGATTTTGTGA	10	1	mmu-mir-374
AGGTAGTAGGTTGTATAGTT	20	2	mmu-mir-338
TTACAGTGGCTAAGTTC	3140	1	mmu-let-7a-1
TGTAACAGCAACTCCATGTGGAC	1	1	mmu-mir-27b
TATAATACAACCTGCTAAGTG	3	1	mmu-mir-194-1
TGAGGTAGTAGGTTGTGTGGTTT	33456	1	mmu-mir-374
ATTATTACTTTTGGTACGCGC	1	1	mmu-let-7b
TGAGGTAGTAGGTTGTATAGTTT	9	1	mmu-mir-126
CTCGTACCGTGAGTAATAATG	4	1	mmu-let-7a-1
ATAATACAACCTGCTAAGTG	1	2	mmu-mir-126
ACCGTGAGTAATAATGC	1	1	mmu-mir-374
			mmu-mir-126

TAGCACCATTTGAAATCAGTG	352	2	mmu-mir-29b-2
CATTTGAAATCAGTG	1	22	mmu-mir-29b-2
GTGAAATGTTTAGGACCA	1	1	mmu-mir-203
TTGGCAATGGTAGAACTCACA	4	1	mmu-mir-182
TAGTAGGTTGTATAGTTTTAGGG	2	1	mmu-let-7a-1
TTCACAGTGGCTAAGT	4	3	mmu-mir-27b
AGCACCATTTGAAATCAGTGTT	102	2	mmu-mir-29b-2
CGGTCAGCAGCCCAGCGCCA	1	1	mmu-mir-126
TTCACAGTGGCTAAGTTCTGCA	617	1	mmu-mir-27b
TAGTAGGTTGTATAGT	13	2	mmu-let-7a-1
CATTATTACTTTGGTAC	3	1	mmu-mir-126
ATCACTAACTCCAAGTCCCA	2	1	mmu-mir-34b
AGAGCTTAGCTGATTGGTGAACAGT	1	1	mmu-mir-27b
GAGGTAGTAGGTTGTGTGGTT	139	1	mmu-let-7b
AAAGTGCAATGCGCTTTGGGAC	21	1	mmu-mir-350
TTAGGGTCACACCACCACTGGGA	2	1	mmu-let-7a-1
GTAGTAGGTTGTATGGT	1	2	mmu-let-7c-2
CTATACAACCTACTGCCTTCC	43	1	mmu-let-7b
GTGAGTAATAATGCG	1	1	mmu-mir-126
GTTACAGTGGCTAAGTT	2	2	mmu-mir-27b
TAGGCAGTGAATTAGCTGATTGT	26	1	mmu-mir-34b
TTGGGCTGCCCCGCTCTGCGGT	2	1	mmu-let-7c-2
AGGTAGTAGGTTGTATAGT	4	2	mmu-let-7a-1
TGAGGTAGTAGGTTGTGGTTTC	299	1	mmu-let-7b

Table S4: Solexa reads from wt and c-kit mutant ovaries matching mouse miRNAs

Read Sequence	#cloned	Read Sequence	#cloned	Read Sequence	#cloned	Read Sequence	#cloned	Read Sequence	#cloned
TAGTATTTTACAGT	2	AGTTGTGTGTGCATGTCAT	1	TCGAGGAGCTCAACAGT	1	TGTTTGGTATGCGCT	3	TCCTCGAGACCTAAGT	1
CTGACACCTTCAAGT	3	TATGCTCTTCACTCTCATT	1	TGAGAACTGATGATGGTGGT	7	CTATGGCAATATGCGCATC	2	TATTGGGAATCTAGTATAGT	1
GGTCTCTCGAGGCTGGGGCA	1	TCAGATTAACCCAGGATAGG	1	CATCCCTCGAGTGGGAGG	5799	CTCCCTCGAGTGGGAGG	1	AATCAGCAATGATAGTCCAAA	1
TAAAGCTCTCAGACAGTCA	4	CTTTAGCTCGATGTTTGGCAG	319	TTCAGATTAACCCAGGATAGG	4	ACCAATTCATGTTGGTGGTGGT	27	GAGCCATTTCTCGTGGTTCAGAGTC	1
CTCAGTACAGGCTTGGAGGA	1	TACTGATCTTGAATGTCAT	4	TATTCAGTATGATGATGGT	1	TGTGAAATCTGATGCTGGAGC	14	TCAGACCTGCTACACTCTGT	1
TCTCAGCTGACGCTGT	2	CCGCTACTGACACACCAGGCG	2	TCGAAACAGGAGCTGCCAGAGGATG	1	TAAATGGTGGTCTTAGGA	1	TGTACATCTGTCTATATA	1
AGCTCGACTCATGTTGGAACTACTTA	1	AGGGTCTGTGCTGATGAGGGACAT	4	CATCGGGATATGCTGT	2	CCGGTGGGAGAGGCGCTGTGGGAA	1	AGCAAGTCTAGCAGGGGTAGAAA	177
AGCAGCATTTACAGGCGTATGGAAG	12	TTTTCTGGGACCTGGGAGC	1	TGTAAACATCCCGCAGT	1	CTATGATGTAGAGCTGGAG	4	CAGTCAATGTTCTGCTCAAGCC	10
ATAGTAGACCTATAGCGTGG	1	TCTCTGTTATGATGATG	1	AGCATTCAAGGTAGAGC	47	ACKATTCAGACTGTTGGTGAG	16	ACACATTCAGTCTGGGAGTTG	2
CTAGACCATTTGAATCGGTT	1	AGTATGTTGACAGTT	1	AGCACTATGAGT	1	CATTCAGCTGTGGTGGATTT	2	TAAAGTGCATCTAGTGCAGA	82
AAACATCTCACTCACTGCC	1	AAAGTGTCTGTCGAGTAGT	1	TATTCAGCTGTCCCGGCTG	41	TAGGATGATGTTGTACAGT	524	CAAAACACACTGGTGGTTAG	2
TTTTCTATATCATTCAGGAGT	1	GCACATTTAAATCACTGTT	30	CGAGCCGGAAGAGGCTGGTGGCCCC	1	TAGGATGTTGATGTTGGT	179	TCGCTGCTCTACACTCTGT	2
ACTAGTAAAGCTTATATCGT	1	CCCCAGGCTGATCTGATGTT	9	ACAACTGAGTCTTGGGAC	2	AGCTTCAGACTGATGTT	4	CGACCTGAGAGCGCTGGC	241
TAGGAGGGCAGAGGAGAGACT	3	AGAGTGAAGGTGGA	3	GCTGGTGTGTGTAATCAGGCGGT	3	CAGTCAATGTTAAAGGGGATC	5	AATCAACACGGTGGACT	1
AGCAGGTTGCCCTTGTATAT	5	CCCTGAGGACCTAACTGTGAG	1	CCCTGAGGACCTAACTGTGAT	1	TATGCTGTTCCCGGCTGA	24	CATCGCACTGTCCCGGCTGT	822
TAGTATGTTTCTGTGTG	44	TTGCTGTGATCTAACCTGTGGT	4	ATCCCTGAGTGTATGTGTA	1	TCCTCGAGAGGCTTGGAGCTT	823	CCAGTCTTCAGACTCTGTTCA	4
TGTGACTTCCCGGCGCTGT	1	TTGGCAGTAGCACTTTTCTCT	1	GTATGATGTTGATATGT	5	CTGTGATTTCAAGAGTATG	2	CATCGGGAATGCTGTCC	1
AGTAGTGTGTATAGTA	1	AGTGTGTGTATGATGT	1	CTGCTGTGTGTGGAG	1	CCCGATGCTCAGACTCTGTT	918	AGGGCATTCCAGGGCAGCTGTT	2
AAACATTCGGGGTCACTCTTTT	1	TACGGTGTGCTCTATATTC	1	TATGATGATGGCCGACTAGGGTTGT	1	TATGCTGTTTGGACTAC	1	TGTCAGTCTCCCGGCTGTT	1
AGAGGGTAGTGTGTCATG	3	TGTGAGTATGTCAGACTG	16	TGTCAGTGTCTTAGCTGGTGT	1	AGGCATTGTAGAGG	4	TGAGGTGTAGATGTATAGTGT	2
GGTACCGTAGTAAATGGC	552	ACATTGATGTTCCGGTGGT	1	GGCAGTGTCTAGCTGGTGT	1	TTTTGGGATGTTCTAATATGTGCTATA	1	TTACGACTTATATGACGCTTT	1
TCGGTATATCGTACAGTAA	1	CAAGGTGTACAGCTGAGG	385	TCCTGTAAGCCCTAACTGTG	3514	ACACTTCAAGCAGGATGTC	3	TTCAAGTAAATCAGG	2
ACATTAAGGCTGTTATCGAC	1	ACATCTCACTTGAAGTGGT	193	CTCAGCAGTCTGAGTGTAG	1	CTGTATTCATCTAGAT	24	TGTGAAATAGAG	3
AGTAGGTTGTATGTT	2	ATGCCACTGTAGAACTACT	1	TGCTGAGAGCACTGTAGC	53	GCGCCAAGGAGCTCGTGGCCCCGGA	2	ACCTTGAGAAAGGCTTTG	7
TGGAATGAAGAAGTATGAT	2	AGCAGTCTGGTAAAGTGGC	37	TCGATAGGAGTAAATAT	1	CCAGAAATAATGCG	60	CCCTGAGCACTAACTGTT	2
TGTGCAATATATGCAAAA	11	TGTAAACATCTCAGCTCTCA	546	CAGTCTTACAGTGTGGCTTT	16	TGTGCTGTGATCAACCTGTGCTT	7	CAGTCAATGATTTGCAAAAGC	153
CTCCAGTACAGGCTTGGCA	1	TGCTCACTTCCACAGTCTG	1	TGATATCCCGTCACTGCTTA	1	TCATTCAGCTGATGTT	4	TGATCTCAAGAGCTGACTG	2
CTCCCAATTCAGGCTGCA	1	TTGCCAGTGGTCTTGGGAGCTT	1	AGGATCCCTAAAATG	1	TTTTGGCAGTACACATTTTTC	2	TGATCTCAAGAGCTGACTG	2
ACTGATTTCTTGGTGTCCAGG	2	TGAGTATGAGTGTGTATGTT	3877	AGGATGATGTTGTGTGTT	6	CCCCAGGTTGATCTGAT	3	CTAACCACTGTGGTAAAGAT	2
TGTAAGTATGAGTGGTGGT	87	TAGCACAATTAAATG	1	CTCTCACTGATGATGAG	24	CTCTCACTGATGATGAG	24	TCAGCTTCAAGAGCTGCTG	1
TAGAGTGTGCCAATGGT	2	GCTCTTTCACATCTGCTAC	2	TCTCAACAGAAATGCCACCC	1	TCTCAACAGAAATGCCACCC	1	GGCTCTTCAAGAGCTGCTG	1
CAACATTCAGAACTGGT	4	ACATTCAGCTGCTGGTGGT	4	CTATACACTCTATGCTCCCT	1	AACTTCAGCTGCTGGT	10	ATGATGTTGCTGATGCTGATG	31
AAATTCACCTCTCGGTGAGT	179	TGTAAACATCTCAGCTGAC	50	TGAGGATGATGGTGTATGATG	5	CTGTTTACACTCTGATG	3	TAGCTTATACAGCTG	68
TGTAACACTCTGA	3	CSAAGAGACTGGTGGCCCGGATAG	1	CTCGAGATTTCTGAGTGGT	18	CATCCCTGAGTCTGAGTCTG	2	CCACATCTGAGCTGCACTTC	1
AATCACTCCGACGAGTAGACA	3	TATGACCTCTGCTCTCT	3	GCCTCGTGGGTTGAA	1	CTTCGAGGATGAGAAAA	1	AGTGCATGCTCTCCAGT	1
AAAGCTGGCTTCAGTGTTA	4	CTGCTACCTGAGTAAATAGC	26	TAGCTTACAGCTGATGTGACTGTTG	6	TCTGAGGAAAGCTGACTCTT	9	TGTGCAATTCATGCAAAA	238
TGAGGTATGAGTGTGTG	115	CACAGCTCCCATCTGACAGCA	5	ATCACTAACCAACAGCAGC	5	CTGTTTTCAGTGGTGGCTTABA	2	ACCGTTCTCCGCTGGCTG	12
CTGATCATGCTGCTGAGTGCT	8	TGGTGTATGATGTT	2	AGAGTGTGGTGGTGGTGGT	2	CAAGCTGAGGCTGCACTTACATAG	1	TCGCTGAGGCTGCTGATG	5
TGAGGATGAGTGTATG	818	TCTCATGACTAATCT	2	AGAGTGTGGTGGTGGTGGT	2	TAATACCTGCTGTAATG	513	CTAGACTGAGGCTGCTG	1
TTTTGACCTGGTCCACTTAC	3	CCACAGGCTGAACACACAGCA	10	TATGCTTGAAGTACCGTATG	1	CTGTGCTGTGACAGCGCTGA	370	GTGCTATGAGTGTGATTGCA	1
AATCCAGCCGCGAGTGGCA	1	TATGAGTGTGGTGTGGTGGT	18	CATTCGCTGCTGAGTGGTGGT	18	TTTTAACAGGCTGCTGCTG	1943	TGAGGATGAGTCTGATG	2
AAACCGTACCTACTGAGT	6	AAACCGTACCTACTGAGTGTAGTA	5	CAGCTTCTTACAGTGTGCTC	4	TACAGCAAGGTTGAAACAGGCA	191	TAGCTTATGACTGATGTTGACT	1218
ATTCAAGTATGAGTGGT	1	CAGTCAAGTGTGATGTCAGAG	1	AATGTCCTGGTCAAGCCCT	6	AAACAAGGTTGCTGCTCTT	3	TGGAATGTTAGGAGCACTA	3
GTCCAGTCTTCCAGGAATG	955	AACGCTGCTCAAGATGCC	9	TATCAAGAGAGGCT	16	ATCTCGEAAATCTGCTT	11	TTTGGAAATGAGTACCTG	1
CTCCAGCAGGCTCTGCA	2	CAATCAACATCTGATGTTGATGTTG	2	CAATTCAGTCTGATGTT	1	CAATTCAGTCTGATGTT	1	AAACACCACTGCACTGCT	1
ATTGGCAATCTGTGATCC	4	CAGCTTCTTCAAGTGTGCTT	3	CAGTAGTCTCAGTCTGTT	76	AAACCTCTCAGTGGAACT	1	TGTAAGACTCTCAGCTGAT	56
ACCGATTTCTCTGGTGTCA	1	CTGAGTGTAGTGTATGAC	1	TCAGTCTCCGAGGATTTCCA	56	GGCCAGTACTGTTGGT	3	CTGCTGACTGATGTTGAACA	1
CTCAATTTTGTGATGTTG	1	CCCTACATTTGATG	1	CTGCTCGGCTGCTGGGGCA	1	CTGCTCGGCTGCTGGGGCA	1	TGAGAGTATGACTCTGATG	1
AAAGTGTACCTGTCAGATAG	1	GGTCCGGTGGCAGAGCGTCTGCTT	1	GTCTTAGCTGGTGT	1	AAACCTTACACTGAGTGTAGTA	3	CAACTCGCAGGATTTCA	1
ATCAAGTCACTGCTTGGG	6	AGAGTATAGCGCTGGGAAGAT	2	AGTTTTCGGGAAAGCT	3	TGCTTCTGCTCAGGATG	13	CAAGCTTCTGCTGGGCT	3
AAAGGACTCAACTTATGAG	21	CCACAGGATAGACACGGAGCA	23	CTTGTACTGCTGCTGATGAT	113	TGAGACTGAATCCAGTGGT	113	TAAAGTGTACTGACGATGCA	364
CTCCGACAGCTTGGTCA	943	AGCATATGCTGCTGATG	22	TGATGATGATG	1	AGCAGCATCTAGAGGCTGTAAGA	1	AGCTGTGACTGACTG	1
ACAGATTCATTCAGGGGAA	1	TAGCACTAATCAACTGGT	23	TGAGTGTGATG	7	GCTTCTTACAGTGTCCGCTG	1	TAGCACCATTGAAAT	1
CAGTGTGATGACTGATG	1	GGGTCATGCTGATGAGGAGCA	1	TGCTAGCTGAGTAAATAG	100	CTGCTACCTGAGTA	1	TAAGTGTGACTGACGATGCA	1
TGTAACACTGCTGCTG	22	AGCATATGCTGCTGATG	1	ATCACTAACCCAGTGGT	1	AGCAGCATCTAGAGGCTGTAAGA	1	AGCTGTGACTGACTG	1
CTTGGACTCTTGTAGTG	1	TGCTGATCTTCTCTATGTT	1	TACACTCTGCTGTAAGCA	1	TCTGTACTGAGCTGCCCC	5	TAGCACCATTGAAAT	1
CAACAGTCTGATGCTGT	1	TAACTCAGGATGAGC	3	CATTCGCTTCCGCTGT	250	CCCGTAACTCGAATCTG	7	AGGGATCTGATGTTGGT	3
TTACAGTGGCTAAGTCTCCG	6342	AACCTTACCGCTCGGTGAGTGGT	8	TGCTGCTTGGATCATCTG	1	ACTAGTGAATGCTGTTGTT	1	GGCCCAAGGAGCTGGTGGCCCCGAT	7
CCCCCGGCGGCTGCCCCGCTCCG	1	CCCTGGGGCTGCTGGTGGTGGT	4	CCCGGAGAGTGGTGGGAGT	1	TAGGATATCGGCTGCTGGTAT	1	CTGACAGGCTGAGTATG	2
ACCAATATGTTGGTGC	2	ATTGAAATCACTGTT	1	AATGTCGCCGCGTGTITTC	1	CAAGT1TAAAGGGCA	1	CTGTACCGTGGATAT	1
ATTCAACGCTCGGTGATG	1	TGAGAACTGAAATCCATAGCGCT	28	AGCTCTGACCGAGGATAC	654	CTGTGGGCCACTGATCAC	1	ATGCACTGACCGGGCATATA	1
CGAGCCAGCAGAGAGG	1	GCTACTGCTCGTCTGGGT	1	AGAGTGTAGGTTGCTAGT	1779	TCGGTGGGCCGAGTAGCCGGGT	1	TCCTTGGTATCTAGCTGTATA	2
CGTGTATTGACAGTGGTGTGGCACT	1	CTGACTCTGACAGT	1	AAAGCTCTATGATAGTATTAG	24	CTGCTGCTGCTGCTGCT	1276	CTGCTGCTGCTGCTGCT	818
ATAAATCACTAGTGTG	1	TGCGGGCTGAGGCTTCAACG	59	TAGTGTGCTAGT	1	CAATTCAGTCTAGGGAA	4	CAGTATCAAGCTGATGCTGCC	3
CTGTGGGGTGAAGCTGGT	1	CCCGATGTTAGACACTGTT	1	TAGCTTACAGCTGATGTGACTG	1	CTATGCAACATATGCCATCT	1	CTCAGGAGGCTCTTGAGCT	1
TGACCACTCTTCTGCTGCTG	1	CCCTGCTGCTGCTGACT	1	TAGCAGAGGCTGATGCTG	1	CTCTTAGTGTGCTG	1	CACTCTCTGCTGCTG	1
CACGGGAGAGGCTGCTG	1	AGCCAGTCTGACAGGCTGA	102	AGGGGCTGATCTGTGATGAGGAA	69	TCTGTGAGGAGGCTTGA	133	ACTGACTGATCTCTGGT	2
CGAGTGTCTAGCTGGTGT	1	TAGTGTATCTCATGTTGGGAT	12	TGCTGCTCCGCTCTACT	23	AGCGTGTGTGTAATCAGGCGGTT	1371	TCGAGGAGCTCAGATCTAGTA	76
AGCAGCATTCAGCGGCTATACA	32	CATCACTGCTGCTCT	1	TGAGGTAGTGTGTTGATGTTA	1	TGAGGTAGTGTGTTGATGTT	20	TGCTGGAAATAGTATGATG	1
CCGCTGTTTATGACTGTT	146	GTCAGCTGCTGAGGAACTCCCTG	1	ATGACAGCTGCTGAGGTT	43	AGCTCTTAGTAGTGGT	43	TGCTGGAAATAGTATGACTG	1
AGCAGGTAGAACCGGA	1	AGCAATCTGCTGCTGGTGT	93	CACTGATGTTAGGCTCTGG	6	GACCCATTTCTCTGGT	7	AACTACTCACTCTGACC	4
TATGCTTTCTTCTCTTGTGTA	13	CAAACATGAGTCCGGTCA	1	CCAGTCCGAGGCTTGGTGGG	6	TAATGCAAGTCACTCCCTGGTGG	3	CTCAGGACCTTAACTTGTG	3
AGSTAGTGTGATGTTG	1	CACATCACTGAGGCTGGT	1	AAAGBGTCTGAGGCTGGT	1	CAAGGCTGCTGCTGAGGTTG	3	GGACAGTCTTAACTGTTG	3
CAACGGATCCAAAGGAGC	54	AGAGTAGAGGTTGCATAGTTTTA	5	AGCAGCAAGAAATATGGCA	2	TCCTTGGAGAGGCTTTGAGCC	239	ACTAATCACTCGGTGTAGT	7
TAAACACTGCTCGTAAAGATG	1296	TGAGGTAGTATGTTGAT	1	TGAGGTAGTATGTTG	2	TGAGGTAGTATGTTG	2	CGGGTCTGACAGGAGTGTAT	1
TGAGTGTAGTATGTTG	1	TGGGAGAGCACCTCGAGCGACTACTTA	1	ATCACTAACCAACAGCCAGCT	1	CAGTCAAGTGTGTTG	1	GGTGTAGGTTGTATGAT	1
TGTTGGCAATCTCTG	1	TAGAGCAAAAGTACTCTGGGAGC	1	CTACACTGTGTTGGTAGTGT	3	CAGGCTGACTGCTGCTGCT	15	AACTACTCTGCTAAGATG	1
CCGCTCGGCTCTACAGAA	11	AATCTTCTCTGGGTAAGATG	64	TCTGAGAGGCTTTAAGCT	2	CCGCATGCTGGGACTCTG	15	AACTACTCTGCTAAGATG	1
CTCCTAGAGTGTGTTGCTG	1	TGGGTTCTCGGGCAAGATGTA	1	AGCAAAAGTGTGCTGCTT	1	CAAGTGTCTAGAGT	1	TGAAACCTGCTGGTGTAGT	1
CTCAGACCTCTGCTGCTGCT	1	CCTCACTCTGCTGCTGCTG	1	TGDAANTGTGCTGCTGCTG	1	TTTTGCAATGTG	1	CACTCTGCTGCTGCTG	4
GCTGACAGCAGATA	1	AGAGTAGTGTGCTGATGTTAGA	1	CAAAAGTGTGCTGCTGAGCTG	1	CCGGGCTGCTGGCGAGAGCCCTG	1	TGGCTCATACAGCAGGAACA	103
AAAGGATGTGATGTTGGCACACT	91	AATCACTAACCAACAGCCAGTA	2	CAATCTCCGAGCACTGGCT	3	ACACACAGGCTAACCTTTT	3	AATCTTGGAACTGATGATGATG	98
GGCTCTTACAGTCTCCTGCT	12	CGTACAGTCTGTTG	2	CATTCGCTGCTGGT	1	CTGCGGAGGCTGTTACTC	1	TGAAATACGAAGGCGCATATA	1
CCCCCGCTGAGGAGTTT	89	GTAGTGTGCTGCTGATGCTG	2	TTTTGCAATGAGCTG	4	ACTCTGAGAGGCTGAGT	1	ACACAGGCTCAGCTGAGT	2
TCAGTCTTCCAGGAAATC	1	CACAGGTTAGAACCCAGGA	4	TAACTCTGCTGTAACAGT	963	AGGTCATCTAGTCAAGATG	1	TAACTCTGCTGTAACAGTGT	7558
CAAGTGTTCAGACTGCTG	1	CTAGCAATCAAGCTGGTTA	32	ATCTGATGAGGAAATCCAGTT	1	ATDTGGAAATTTGCAATG	1	CTAAGCAAGTCACTGATGACTGAA	1
AGCTAATCACTCACTCTGG	1	TCCCCGAGGTTGATGCTGATGTT	1	ACTCTACTGCTGCTAGCGTTC	18	GGCTCTTACACTGTGTT	27	TGAACTCAGAGGCGCTGAT	1
ACATCTGATGTTGTGCTGGT	1	AATCACTAACCAACAGCAGTA	6	CCGCTGATCTTATGAGC	4	TAAAGTGTGAGGAGGCA	1	TATTTCTGCTGCTGCTG	2
ATACTCCGGGTAATG	3	CTAAGCCAAAGTCTCAGTTCA	1	TCACAGTGACTGATG	284	AGTGTCTCTACTT	3	AACTACTCTGCTGCTG	31
GTGTTCAAGACTGCTG	1	TCTACAGTCAAGTCTGCTC	26	AAACTCTGTGTAAGTACT	26	TGGCTGAGTGTGAGGAG	111	AATCTCTGATCTGGGTTCTAGTGT	7
GTGCTGCTGCTGCTGCTG	1	TGCTGTTGATGATG	2	TGCAACAGAGCTGAGCCT	1	AGATGATGATGATGAGG	7	CACGCTACTGCTGGGCTG	1
TAGCACACAACTAGCTGT	228	TGTAAACACTCAAGCTTCTG	284	GGCTCAGTGGGCTGATGACCT	3	TGCTGCTGCTGCTTCACTCC	17	TGGGGTACTACTGTCCAGG	1
AAAGAGGTATCTCTGTTGTGT	1	TAAAGCTCTTCTGCTGGTCA	3	AAAGGATGTTGTCATGTT	1	TAACTCTGCTACTGAGGCTGATG	2	TGCTCCGAGCGGGGCA	4
TGCTCTTACCTCCGATGTTG	1	TAGGATGTTCTCTGTTGGG	280	AAAAGCTTGTAGAGGGCGGAA	39	CAGTCAAGTAAAGG	14	AGTCTTCTGCTGGGCA	14
ATGACAGTCACTCCCTGTTAGT	1	TAGTATGATGATGTA	1	ACTTCTGCAAGT	4	CTGTAGCTGCTG	1	TGCTGGCTGCTG	4
AGCTCTTACAGTCTGCTG	1	CCATCTCAGTCCAGTGTGG	4	TGCTGGAANAATCTGTTCT	38	CTCCAGTTCCTCCAGG	1	TAAAGTGCATCTGAGGATGAA	1
TAGTATGTTGATGTT	5	CCGAGTCCGGAAGAGCTGGAGGG	1	TTGCAAGCAGCACTCCCTC	1	TAGTATGATGTTG	3	CTGTGCTCAACTGCTGCT	9
ATCAAGTCAAGTGTGGGAC	2	TGAGGCTTATGACAGCTTGGAG	1	TAGCTACTGAGGCTGTTAG	3	TAAGTGTGAGGAGGCTG	1	ACTTCAAGTCACTGCTG	3
TAGTATGTTTCTGTTG	5	CTTTAGCTCGGATGTTTACA	110	TGCGTCAAGTCCAGAGGAAAG	362	TAACTCTGCTACTGCTGCT	1	TGTAAGTAACTCAGGATGTTG	1
AATCTTCTGCTGGTGGAAATG	2	ACATTCAGTAAACTGTT	7	AGAGTGTACAGAGGATCA	1	CTGAGTGTGAGGAGGCA	1	TGAGGTAGTGTGTTGATG	7726
TAGCAGGGGAGAGTACTGCT	89	CTCCTTCGATAGT	1	TGATATGATCAITGGCAAT	1	CTACTGAGTGGTGTGATG	3	GTATGAGTGTGTTGTT	2
ATACAGTACTGCTGCTTGGT	17	TACATGTCCAGAGTTCGAA	9	GAAAGGCTGCTGGTAGGGCTGA	3	CTGACTAGAGGCTTGGAG	1	TAGCAGCTGCTGGGTTG	2
CGTAGTCCGATCTGTG	8	CCGATCCCTAGAGGATGTTGTA	8	GAGGTATGATGTTGTTG	8	CTAATCTGCTGCTGCTG	1	AATACCTGGTATGATGAGC	2
AAAGCTGGTGTGAGG	1	TGACTTGAATGATGACGC	3	GTAACATCTCCAGTGGAGCT	8	TCCGGGCTGAGTCTGTGAC	1	TTGTGCTTCTCAACAGCTGAT	1
AATGACACACTCACTGCTG	1	AGCAGTCTGCTGCTGTTG	15	TGGAGAGGCTGATCTGAT	15	CCCCAGGCTGATCTGAT	1	CAAGAAATTTCACTGATGTTG	1
AGGCAAGTACTGGCATACT	13	AACTTCAACCTGCTGGT	69	TAGGAGTATGATGTTAATG	104	TAGCAGCACTCAGTGGT	104	CAAGTCTGCTGCTGCTG	1
ACTCCCTGCTGAGAT	1	TATGATGATGCTCCACTGT	2	CTGTAGG					

CGTGGTTCATGAGTGGTTGATTT	2	AATACTGCTGGATATGCC	2	TCCTCCAGTCCAGGCTCTGTTG	3	TCAGTGCACTACAGAAGCTTG	551	GCAGCCAGCAATCATGTTTTG	1
TACAGCAAGCAGACAGA	1	AAMCCCTGATACGTCACTTGT	1	GACACCCAGGGCAACGATGTTGT	2	CTCGTGTCTGTGTGCAAGCCG	2	AAGTAATCCAGAGTAGCC	5
CTCGGGATCATCACTAGT	4	CAGTCACTAAGACTTTGT	4	ACATTCATGTTCCAGCTGGTTGA	1	TGCAATACATCACTTCCCAAAAC	1	TATACATCATCCCTCTCTCC	2
CAGTGCATACAGAAGCT	1	CTGTGAGGACTCTGTGTT	1	TGCATGAGATGGGATGGGTAA	1	CTACACCATTGAAATCAAGT	1	AGGTAGAGGTTGTATGAT	1
CAAGACAGGCTCTGG	4	TTTGTCCCTTCAACAGCT	6	GAAGTGTGCTGGTGGATG	1	TAGTGGATGGTTGTACAG	4	TCTTCACTAGCTGTCC	1
CAAGCATCCCAAGCAGC	108	CATGACTGATTGTTG	1	ACTCATTGTTTGTGATG	4	AACCCGATGAGTCCGAACTG	4	TAATCTGTCTGGTATG	4
TACTAGTAAGCATTT	1	ATGGGAAATGTGTCGCC	1	CTAGACTGAGTCTTGA	1	CTACATGATGGATGACT	4	TSAGGTGTAGTTGTTGCG	2
AGTTCCTCAGTGGCACTTGA	314	TGCTGTGGTGGGATCAAGCAAG	1	TACAGTACTGTGATGCTG	1	TAGAGTCTGTGTTGGTAA	2	CTTACGTCTGCTGGTGT	2
CAGTGCATACAGAAGCTTGT	1	TACCGCCGATGATGATG	20	AATCAATGCTGAGGAAATACCA	1	CTACTTCAACACAGAGCCG	1	CAGTGCATGATGATG	1
TATGTAAGTGGTCACT	1	ATCTCTGTGATGTTGGT	1	CAAGTGCACAGTGGTGGT	1	CAAGTGCACAGTGGTGGT	1	AAAATGATCCAGTCCAAACA	1
AAACAATACAGTCTGCCA	1	CAGTTCAGCAAGAGAC	1	CAAGTGCACAGTGGTGGT	1	TGTCGCCCTCAACCAAGCT	1	ACTGACAGGAGGCACTGTAC	1
TGAATGTAAGAAGTATG	1	ACAAGTCTGTGCTATAGGTA	1	AGTTATGATGCCCAATCTC	1	TACGTATATAGTCTTCA	2	TCTCAAGTCAAGTCTCTC	6
TCAACGCTGTGCGTGA	1	ACAAGAATTAATCTCTAGTCTT	1	TAAGTGCATCTGAGTGGT	2	CTGAGGATGATGTTGCTGT	358	TACACTGCTGGTAAAGA	2
ATGCGTATTAAGATGATG	2	CAAGTGTGCTGTGTCGAGG	29	TAAAGTGCATCTGAGTGGT	2	CTGAGGATGATGTTGCTGT	32	TTCAGCTCTTATGATGGAT	2
CCCAAGTCTTACAGTAC	1	GAGGTTGGGTTGGAGGCTCTC	2	AACCCGTAGATCCAGACTG	2	CCAGTGGATGGGAGTGGTGT	2	CCCACTGAGTCTGCC	2
TCCCAGAGTGATGCTGATTGTTT	6	TTTCTACGCGAGTITTAAC	1	TTTCTCATCTCAGTACAGAG	1	CCGACTGGTGGTACTTGCTGT	404	AGCTTCTTACAGTGTTC	1
TACTCCGGCTATAGTGA	1	CAAGTGTGCTGTGTCGAG	3	CAGTGGTTTTACCTATGATGAG	2	GGTATGATGATGATGAGT	7	TAATGTTCCGTCGAGTCC	1
TAGACACAGCAAAATATGG	3	CAAGTATCCAGGATAGGC	7	CGCGGGAAACAGTAACTAG	3	TACAGTAGTCTGCACATGGT	3	ACGACGATTGACAGGGTATGAAG	1
ATACTGCAATCAGGAAGTACGGA	1	TAATACTCTGTGTAATGCCCTG	2	TAACTACTCTGTGAAAGATGG	2615	TGAGGTAGTGGTGTGTGGTTCAGGG	1	TCAAGTCAACAGCAAACTTCTC	1
TAGACAGCAATAAATTGGGCTTA	17	TGAGTGGATTTTGTGCT	12	AATCTTGGAACTGAGTGTGA	112	CAGTATCTGCACATGGT	597	TGAACATCTCAACTCTCAGCTG	1
TGAGCTCTATAGATGCT	2	TGTGCTGCTATCAAT	2	TGAGGATGCTGTGGA	13	TGAGTATGCTGTTTGTGCTGTG	43	TTCCAGGACCAACACTT	25
CCCACTGTAGTACAT	1	ACTCTGTGTAAAGATGG	2	CTGTGGGTGACACG	2	CCAGCATCTCAAAATCGT	1	AGGTCCTCTGGGATGGA	1
TCCCAGAGTGATGCTGATG	6	TGGAGAAAAGGCACTCTG	5	CAITTAATCTTTGATACG	781	ATACTGCATCAGAACGACTGCTG	2	CTGAGTATGTTGTTACAGT	9
TAGGCTATACCCCACTGTGGATGA	4	STAACACTCTGTACTGTGAAGC	6	TGAGTATCAAGTCTGAGTGA	59	CATTCGACAGGATTCG	4	AGSAGTGTATGATGCT	2
AAGAGGTATAGCCGATGGA	5	TCTCCCTTGTCACTCAGCTGGA	7	TGCTATCAACATATGATCCACT	23	CAAGCAGGAGCCGCTCAGGAGAGT	2	TGCTGTCTGTTGTGCAAGCCGAG	2
TAGTAAAGCAATATAGCTGACT	1	TAGCAGCAATAATGTTGTT	90	CCAGTGTAGACACTCTGT	1	CCTATGATATACTCTT	1	TGACAGCAGAAAATTTGGC	1
AACATCAAGCGTCTGGTATGGGTA	1	CATCTACGCGAGAGCTGGT	1	CCAGTGCATACAGA	2	TTGCTGCTCGTCTTCACTC	39	TAGTATGTTATAG	1
TCTAGTCAATGATGTTGCTG	8	CTGACATCAGCAATTTTGTG	15	TGACAGTACTGAGATTTTGTG	1	TTTTCCAGAGG	3	ACTTATGACAGTCTTCA	12
GGTTTGTGTGGTGTGTT	1	GTGATGTAGCTAGTTC	2	TGCTGCAGGGCTGCTAG	2	TTTTGGATGTTCTTAAAT	1592	TAAAGCATACAGCACTGGTGC	82
TCGCTCTCAGTACTTATAG	2	TAGTCTCAGACTGATGTGACTGT	2	AGGTTGTAGTCTGTGTGTA	8	AGCTTACAGACTGCTGATG	10	CCCTCAGTACTTATAG	1
CCGCTCGAGGTTGTGAGCTGT	38	ACTAGTGGTCTAGTTCGCG	309	ACDCTTGAATCGSTT	1	TGTTGTGTACATGTAAT	2	CTTCAAGGAGCCAACTCTCT	1
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CAGGAGCTCAGACTTCTGTTG	1	TAMGTGATGTTCTGCTGGCTCCTAAT	1	ACTAATCTTCTTGGTTCAG	27	TACAGTATGTTGAAATTTGTT	11	TGAGGTATGATGTTGTATGTT	25
CATCTGCTGCTGCTGCTG	1	CATCCCACTGCTGCTG	52	TCCTCCAGGATGCTGTT	1	TAGCAGTCTGCTGAGTGTG	13	TTTTGCTGATGATGCTG	1
CATTATCTTCTGATGCGCTGTA	1	AAATCACTGAGCTCCGCAACC	3	TAGCAGCAGATGTTTATCATACTAG	1	CACTGCTGCTGCTAGGCT	1	TTTCCAGAACTCT	19
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Table with 5 columns: Index, Sequence, Index, Sequence, Index, Sequence. Contains multiple rows of nucleotide sequences and their corresponding indices.

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CGGTATCATGGTACGAGTCTAGCT	2	ACTCATTGTTTTCAGTATGGA	10	ACTCCTGGTAAATGATGA	4	TAGCAGCAGCTAAATGTT	1	TCACCTGCGAGGGATT	1
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GTAAACATCTTGAAGGAACT	2	TTGCTGAAGCCAGATGCCCTCTGAGAA	5	CTTTCAGTGTGTTGTTCTG	23	AGTTTGTGACTCTCTTC	2	TCGTGACTGATGATATGCG	1068
CGTATGGCTGTTGGTGTGAT	1	TCAGATCACTAGTCTG	12	TGAGTGTGTGTTGTTG	10	TACCTGACTGATGTTGTT	348	CTATGCTGACTGACTGATG	1
GGCTGAGCGTGTGCGCTGCT	1	TCAAAGTCTGCTGAGGAGT	76	CTTACAGCTAGTATGTT	2	TACCTGACTGATGTTGTT	4	TGTAAAATCCCGCACTGGA	78
TACAGTACTGTGTAATGTT	2	TAGCAGCACTAATGTTGTT	7	CAGTACGACTGATTAAG	28	TGTGGCAGCTGTAGAAATCT	7	CAGTACTGCTAGGTTG	1
ACTGATTTCTTGTGTTG	1	AGSGCTCTGCTGATGAT	10	AAAGAGTGTGTTGAGGAT	17	TGTCTGAGGCTGTAGTGTGA	1	CTAGTGTGCTGCTGTTG	1
ACGGAATCCCAAAAGCACTG	1	ACAGCACTGTACAGGCT	21	CCCTGGGCCCTCCCTCCAGT	60	ATTTGAATCACTGT	2	TTATCAGCTAGTGTGA	3
TGAGATGAAGCACTGAG	3	TGAGGTAGTGGTGTGTGTGTTA	96	TTTGTGCTCGCTCGCGTGA	2	TGAGGATAGTGTGTGTGTTT	233	TTTGTGCTGATCA	1
CGAATCATTTTGTGCT	2	TACCTCTGGTAAATGATGAC	2	ACTCTGACTGAGCACTAAG	9	TTTTCAGCGTGTGTTGCA	13	ACACTTCAACTCTGCTGGATGTT	19
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TACACAGCACTGAGGAGGCA	7	ATTGGGATGATGGTACT	1	TAGTCTCATCTGTTGGT	1	TAGCAGCACTAATGTTACTACAT	1	CTAAGTGTGACTGATGCTG	8
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CAGTCACTACTGCTAGTGGT	3	ACAGCAGCACTGACATCA	1	CTGTTCCGAGGATGCCCGCCCTG	4	CACCGGGAAACGAGTCCACC	1	CAAGGCTGTGGAAGAA	16
TTTTGCGATGTTCCCTA	14	TACAGCAGGACAGACAGG	11	TAGGTAGTATGTTGTAGT	47	ACCAATATATTGCTGCTTAA	2	TCCCTGAGACCTTTAAGCTG	29
AATCTGGACAGCAAGTGTGAATG	17	GACGATTTCTCTTGGTFTCA	3	ATGACTGCTGTTAATGATAGC	1	TAGGATGTTCTCTGTGTTGGGAT	5	AGCCGAGGTTGCCCTTGTAT	1
CGANCTATATTTGCTGCTCT	5	CAAGTCAAGTCTTGGACCT	10	GTGTTGCTCATTTATGGAT	1	CCTCATGCTGGAGGCT	1	AAAAGTGGTGTGAGGATG	1
CAATTTAGTGTGTGATAT	7	GTAGAGTGTGATGTT	7	TATGTCATCGCTGGCCCACTACC	1	CTATCAACTACTGCTCTCC	12	AAGGAGCTTACAATCA	1
TAGAGGTTCTATGATCAACCCGACAGGA	13	CAAGCTGCTGTATAGGTATGT	5	TGAAACATCAACAGGAAACCTTT	1	GTAGTGTCTCTCATTTGATG	20	TATGTTCTCTCATTTGATG	20
TGCTACTAGCTGATATCAGT	2	AACTATGACTGCTTGGGAC	38	AACTATGACTGCTTGGAGTT	85	ATGGCCCACTAGGTTGTTG	6	CCAGTGTTCAGACTACTCTTCAGGAC	2
TGCGAGTGTCTAGCTGT	1	GCAATGTACAGGCTATG	2	CGAAGGAGCTCGTGGCCCGATAGC	2	TAGGAGTGAATGATGCTGATTG	2	TTTTGGAGTGTCTTCAATA	106
TGAAATGGCCCACTAGGTTGT	3	CTGACATTAACAGACAGCCG	115	AATCACTAACAACAGCCAGG	25	TAGGCTTTTCACTTATG	1	TGGCAGTCTTACTGAT	4
CAAGTGTCTAAGTGCAGTGA	12	TGCTGTGCACTTGGTAT	5	TGAGGCTGGTCTTCCCTCT	5	GTAGTGAATATGTTCAAAAG	27	GCTGCACCATGCTCAGGT	1
TTTTGAGTGTGTTCTAATG	1	AGGTGATGGTGTATAGT	2	TGAGTGGAGGAGTGTATAGT	109	TAAACCTCTCAGTGGAA	1	ASTATCCAGATAGG	1
CGTGTCTGTGTGCA	1	CCCTAAGGTAAATTTTGGG	1	CAACAATACAGACTGCCATA	55	CTGGTGTGTAACAGG	5	CAGCCGCAAGGAGGCTGGTGGCCGCC	1
CAGCAGCAATCATTTTT	51	TGAGTAGTGGTGTGTTGGTTC	28	ACATTCAACGCTGTGGTGGTGT	2	CCGAGTGTTCAGACTGCT	23	CTCGTGTGCCCGGATAGCCGGTCCCC	1