

	10	20	30	40	50	60
mmu-mir-1935 MI0009924	ACTCTGGAGGCAGAGGCTGGCGGATCTCTGAGTTGAGGCCAGCCTGGTCTACAGAGTGA					
read_122351_density#1	ACTCGGGAGGCAGAGGCAGGCCG					
read_514992_density#1	ACTCAGGAGGCAGAGGCTG					
read_48304_density#1	ACTCTGGAGGCAGAGGCAGGTG					
read_402315_density#1	ACTCTGGAGGCAGAGGCAGGT					
read_325560_density#2	TCTGGAGGCAGAGGCAGG					
read_732838_density#1	AGGCAGAGGCTGGAGGAT					
read_394036_density#1	AGAGGCAGGTGGATCTCTGAGTT					
read_112833_density#1	GAGGCAGGCGGATCTCTG					
read_447435_density#1	GAGGCAGGTGGATCTCTGAGTTC					
read_140212_density#1	GAGGCAGGTGGATCTCTGAGT					
read_172776_density#1	AGGCTGGTGGATCTCTGAG					
read_606237_density#1	AGGCAGGCGGATCTCTGAG					
read_492255_density#1	AGGCAGGCGGATCTCTGA					
read_460497_density#1	GGCAGGTGGATCTCTGAGTTCGAGG					
read_252165_density#2	GCAGGTGGATCTCTGAGTTCGAGGC					
read_811663_density#1	GGCGGATCTGTGAGTTCGAGAC					
read_696780_density#1	GGCAGATCTCTGAGTTCGATG					
read_276623_density#1	GCAGATCTCTGAGTTCGAGGC					
read_707813_density#1	TCGGATCTCTGAGTTCGAGGCC					
read_71605_density#1	GGCGGATCTGTAGTTCGAGGC					
read_160955_density#2	GCAGATCTCTGAGTTCAGGCC					
read_297439_density#1	CGGATCTCTGAGTTCGAGGCCAGCC					
read_256226_density#1	GTATCTCTGAGTTCGAGGC					
read_588891_density#1	GGATCTCTGAGTTCGAGGCCAGCTTGGTCTACAGAT					
read_453368_density#1	GGATCTCTGAGTTCAGGCC					
read_281346_density#1	ATCTGTGAGTTCAGGCCAGCCTG					
read_673347_density#1	GGATCTGAGTTCGAGGCCAGCCTG					
read_846414_density#1	CTCTGTGAGTTCGAGGCCAGCCTG					
read_272834_density#2	TCTGTGAGTTCGAGGCTAGCCT					
read_130417_density#1	TCTGTGAGTTCGAGGCCAGCCTGGT					
read_228300_density#1	TCTCTGAGTTTGAGGCCAGC					
read_451777_density#1	GATCTGAGTTCGAGGCCAGCCTGG					
read_137245_density#1	ATCACGAGTTCGAGGCCAGCCTGG					
read_781342_density#1	TCTGGAGTTCGAGGCCAGCCTGGA					
read_663295_density#1	CTGTGAGTTCGAGGCCATCCTG					
read_519637_density#1	CTGTGAGTTCGAGGCCAGCCTGGTC					
read_70171_density#1	CTATGAGTTCGAGGCCAG					
read_291930_density#1	ATCTGAGTTCGCGGCCAGCCTG					
read_65649_density#1	ATCTGAGTTCGAGGCCAGCCTGGACTAC					
read_218979_density#1	ATCTGAGTTCGAGGCCAGCCTG					
read_354112_density#1	ATCTGAGTTCGAGGCCAGCC					
read_792082_density#1	ATCTGAGTTCGAGGCCACCCTGG					
read_400094_density#2	TGTGAGTTTGAGGCCAGCCTGG					
read_319937_density#1	TGTGAGTTTGAGGCCAGCCTG					
read_617797_density#1	TGTGAGTTCGAGGCCAGCCT					
read_300766_density#1	TGTGACTTCGAGGCCAGCCTGG					
read_498811_density#1	TCTGAGTTCGAGGCCAGTCTGGACT					
read_586116_density#1	TCTGAGTTCGAGGCCAGTCTGGA					
read_853447_density#1	TCTGAGTTCGAGGCCAGCCTTT					
read_101677_density#1	TCTGAGTTCGAGGCCAGCCTGGACT					
read_647274_density#4	TCTGAGTTCGAGGCCAGCCTGGAC					
read_641567_density#1	TCTGAGTTCGAGGCCAGCCTGGAATA					
read_600844_density#1	TCTGAGTTCGAGGCCAGCCTGGAA					
read_325920_density#13	TCTGAGTTCGAGGCCAGCCTGGA					
read_115759_density#2	TCTGAGTTCGAGGCCAGCCAGGGCTAC					
read_655100_density#1	TCTGAGTTCGAGGCCAGCCAGGGCTA					
read_226213_density#1	TCTGAGTTCGAGGCCAGCCAGGGC					
read_12667_density#1	TCTGAGTTCGAGGCCAGCCAGG					
read_138592_density#1	TCTGAGTTCGAGGCCACCCTGGACT					
read_713047_density#2	TCTGAGTTCGAGGCCACCCTGGA					
read_703687_density#1	TCTGAGTTCGAGGCCACCCTGG					
read_317883_density#1	TCTGAGTTTCATGGCCAGCCTGG					
read_822416_density#1	TGGAGTTCGAGGCCAGCCTGGACTACA					
read_853226_density#3	TGGAGTTCGAGGCCAGCCTGGAC					
read_679286_density#1	TGGAGTTCGAGGCCAGCCTGG					
read_849770_density#1	TGGAGTTCGAGGCCAGCCAGG					
read_591654_density#1	GTGAGTTTGAGGCCAGCCTGG					
read_839091_density#1	GTGAGTTTGAGGCCAGCCTGGT					
read_510411_density#1	GTGAGTTCGAGGCCAGCCTG					
read_119366_density#1	CTGAGTTCGAGGCCAGTCTGGACTACA					
read_433630_density#1	CTGAGTTCGAGGCCAGTCTGGAC					
read_465660_density#14	CTGAGTTCGAGGCCAGCCTGGAC					
read_588407_density#1	CTGAGTTCGAGGCCAGCCTGG					
read_310044_density#1	ACGAGTTCGAGGCCAGCCTGG					

read\_396154\_density#1 -----TGAGTTCGAGGCCAGTCTGGACTACA-----  
read\_544309\_density#5 -----TGAGTTCGAGGCCAGCCTGGAC-----  
read\_253700\_density#1 -----TGAGTTCGAGGCCAGCCAGGGCTAC-----  
read\_203704\_density#1 -----TGAGTTCGAGACCAGCCTG-----  
read\_584999\_density#1 -----CGAGTTCGAGGCCAGCCTGGGCTACA-----  
read\_97998\_density#1 -----CGAGTTCGAGGCCAGCCTGGGCTAC-----  
read\_578441\_density#1 -----CGAGTTCGAGGCCAGCCTGGGCTA-----  
read\_20398\_density#1 -----GAGTTTGAGGCCAGCCTG-----  
read\_29585\_density#1 -----GAGTTCGTGGCCAGCCTG-----  
read\_597369\_density#2 -----GAGTTCGAGGCCAGTCTGGACTACA-----  
read\_427515\_density#1 -----GAGTTCGAGGCCAGTCTGGACTA-----  
read\_877609\_density#1 -----GAGTTCGAGGCCAGTCTGGAC-----  
read\_12945\_density#1 -----GAGTTCGAGGCCAGCCTGT-----  
read\_458950\_density#1 -----GAGTTCGAGGCCAGCCTGGGCTACA-----  
read\_150186\_density#1 -----GAGTTCGAGGCCAGCCTGGGCTAC-----  
read\_147366\_density#3 -----GAGTTCGAGGCCAGCCTGGGCT-----  
read\_456921\_density#5 -----GAGTTCGAGGCCAGCCTGGGC-----  
read\_97149\_density#1 -----GAGTTCGAGGCCAGCCTGGACTATA-----  
read\_760233\_density#1 -----GAGTTCGAGGCCAGCCTGGACTA-----  
read\_291755\_density#1 -----GAGTTCGAGGCCAGCCTGGACT-----  
read\_212600\_density#1 -----GAGTTCGAGGCCAGCCTGGACA-----  
read\_627479\_density#10 -----GAGTTCGAGGCCAGCCTGGAC-----  
read\_744025\_density#1 -----GAGTTCGAGGCCAGCCTGGA-----  
read\_24934\_density#2 -----GAGTTCGAGGCCAGCCAGGGC-----  
read\_641581\_density#1 -----GAGTTCGAGGCCACCCTGGAC-----  
read\_78809\_density#1 -----GAGTTCGAGGCCACCCTG-----  
read\_271544\_density#1 -----GAGTTCGAGACCAGCCTG-----  
read\_300553\_density#1 -----AGTTCGCGGCCAGCCTGGGCTAC-----  
read\_505919\_density#1 -----AGTTCGAGGCCAGCCTGGGCTACAC-----  
read\_607878\_density#1 -----AGTTCGAGGCCAGCCTGGGCTACA-----  
read\_111211\_density#3 -----AGTTCGAGGCCAGCCTGGGCTAC-----  
read\_472149\_density#2 -----AGTTCGAGGCCAGCCTGGGCT-----  
read\_199695\_density#4 -----AGTTCGAGGCCAGCCTGGGC-----  
read\_863415\_density#4 -----AGTTCGAGGCCAGCCTGGAC-----  
read\_569003\_density#2 -----AGTTCGAGGCCAGCCTGGA-----  
read\_737458\_density#2 -----AGTTCGAGGCCAGCCTGA-----  
read\_137894\_density#1 -----AGTTCAAGGCCAGCCTGGGCTAC-----  
read\_729896\_density#1 -----GTTTCGCGGCCAGCCTGGACTA-----  
read\_527716\_density#1 -----GTTTCGAGGTCAGCCTGGTTTA-----  
read\_325172\_density#1 -----GTTTCGAGGCCAGTCTGGACTA-----  
read\_147122\_density#1 -----GTTTCGAGGCCAGCCTGGGCTACACA-----  
read\_371531\_density#7 -----GTTTCGAGGCCAGCCTGGGCTACA-----  
read\_199456\_density#2 -----GTTTCGAGGCCAGCCTGGGCTAC-----  
read\_762645\_density#2 -----GTTTCGAGGCCAGCCTGGGCTA-----  
read\_855051\_density#1 -----GTTTCGAGGCCAGCCTGGGCT-----  
read\_250412\_density#2 -----GTTTCGAGGCCAGCCTGGGC-----  
read\_364073\_density#1 -----GTTTCGAGGCCAGCCTGGACTA-----  
read\_101360\_density#1 -----GTTTCGAGGCCAGCCTGGA-----  
read\_105663\_density#1 -----TTCGAGGCCAGCCTGGGCTAT-----  
read\_132885\_density#1 -----TTCGAGGCCAGCCTGGACTACAGA-----  
read\_40394\_density#4 -----TTCGAGGCCAGCCTGGACTAC-----  
read\_111505\_density#2 -----TTCGAGGCCAGCCTGGACTA-----  
read\_233357\_density#1 -----TTCGAGGCCAGCCTGGAC-----  
read\_6669\_density#1 -----TTCGAGACCAGCCTGTCTAC-----  
read\_175283\_density#1 -----TTGAGGCCAGCCTGGTCTGCAG-----  
read\_365039\_density#1 -----TCGAGGCCAGCCTGGGCTACACG-----  
read\_630659\_density#1 -----TCGAGGCCAGCCTGGGCTACAC-----  
read\_643187\_density#2 -----TCGAGGCCAGCCTGGGCTAC-----  
read\_566362\_density#1 -----TCGAGGCCAGCCTGGACTACC-----  
read\_763681\_density#1 -----TCGAGGCCAGCCTGGACTACACA-----  
read\_368847\_density#1 -----TCGAGGCCAGCCTGGACTACAC-----  
read\_808035\_density#1 -----TCGAGGCCAGCCTGGACTACA-----  
read\_555143\_density#2 -----TCGAGGCCAGCCTGGACTAC-----  
read\_282137\_density#3 -----TCGAGGCCAGCCTGGACTA-----  
read\_741894\_density#1 -----TCGAGGCCAGCCTGGACT-----  
read\_146387\_density#1 -----CAGAGGCTGGCTGATCTCTGT-----  
read\_144057\_density#1 -----CGAGGCCAGCCTGGGCTA-----  
read\_5368\_density#1 -----CGAGGCCAGCCTGGACTAC-----  
read\_645995\_density#1 -----GAGGCCAGCCTGGACTACA-----  
read\_257755\_density#1 -----AGGCCAGCCTGGTCTCCAGAGAGA-----  
read\_6491\_density#1 -----AGGACAGCCTGGTCTACAG-----  
read\_245684\_density#1 -----GCCAGCCTGGGCTACAGA-----  
read\_434026\_density#1 -----CAGCCTGGTCTACAAGAG-----

```
              10           20           30           40           50           60
...|...|...|...|...|...|...|...|...|...|...|...|...|...|...|...|...|...|
mmu-mir-1957 MI0009954 CTGGAAAGTAGCTCAGT GGTAGAGCATATGACCCAGCATGTGCAAGGCCCTGAGTTTATCCCCAGCA
read_706251_density#1 -GGGAAAGTAGCTCAGT GGTAGAGCA
read_13366_density#1 -GGAGATGTAGCTCAGT GGTAGAGC
read_403259_density#1 -GGAGATGTAGCTCAGT GGTAGAG
read_845422_density#3 -GGGATGTAGCTCAGT GGTAGAG
read_291888_density#4 -GGGATGTAGCTCAGT GGTAGA
read_744164_density#1 -ACGTAGCTCAGTCGGTAGAGC
read_700040_density#2 -AAGTAGCTCAGTTGGTAGA
read_281622_density#1 -TG TAGCTCAGT GGTAGAGCGT
read_277573_density#2 -TG TAGCTCAGT GGTAGAGC
read_472536_density#1 -AGTAGCTCAGTTGGTAGAG
read_216386_density#2 -TAGCTCAGTTGGTAGAGCA
read_797966_density#2 -TAGCTCAGTCGGTAGAGCATGA
read_147842_density#1 -TAGCTCAGTCGGTAGAGCATCA
read_819036_density#1 -TAGCTCAGTCGGTAGAGCATC
read_83663_density#8 -TAGCTCAGTCGGTAGAGCA
read_564936_density#1 -TAGCTCAGT GGTAGAGCATTTT
read_821530_density#18 -TAGCTCAGT GGTAGAGCATTTGACT
read_540938_density#1 -TAGCTCAGT GGTAGAGCATTTGA
read_258542_density#6 -TAGCTCAGT GGTAGAGCATTTG
read_824518_density#1 -AGTCCGT GGTAGAGCATTTGA
read_695103_density#1 -AGTTCAGT GGTAGATCATTTGA
read_131062_density#1 -AGTTCAGT GGTAGATCATTTG
read_442935_density#20 -AGTTCAGT GGTAGAGCATTTGACT
read_220793_density#1 -AGTTCAGT GGTAGAGCATTTGA
read_785815_density#15 -AGTTCAGT GGTAGAGCATTTG
read_21775_density#3 -GCTCAGT GGTAGAGCATTTGACT
read_807180_density#8 -GCTCAGT GGTAGAGCATTTGA
read_358941_density#1 -GCTCAGT GGTAGAGCATTTG
read_315213_density#2 -GCTCAGT GGTAGAGCATTT
read_232656_density#2 -TCAGT GGTAGAGCATTTGACT
read_637315_density#2 -TCAGT GGTAGAGCATTTGA
read_765594_density#1 -CAGT GGTAGAGCATTTGA
read_828114_density#1 -AGT GGTAGAGCATTTGAC
```

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              10           20           30           40
...|...|...|...|...|...|...|...|...|...|...|...|...|...|...|...|...|...|
hsa-mir-1973 MI0009983 TATGTTCAACGGCCATGGTATCCGACCGTGCAAAGGTAGCATA
read_377991_density#1 -GTTCAACGGCCGTGGTATCCGTA
read_128075_density#1 -GTTCAACGGCCGCGGTATCCGACCGTGC
read_65009_density#7 -GTTCAACGGCCGCGGTATCCTGAC
read_441928_density#4 -GTTCAACGGCCGCGGTATCCGTA
read_434764_density#3 -GTTCAACGGCCGCGGTATCCG
read_227167_density#1 -TTC AACGGCCGGGTATCCTGAC
read_80921_density#2 -TTC AACGGCCGCGGTATCCTGACC
read_51227_density#2 -TTC AACGGCCGCGGTATCCTGAC
read_277138_density#1 -TTC AACGGCCGCGGTATCCTGA
read_714289_density#5 -TTC AACGGCCGCGGTATCCTGACC
read_508226_density#5 -TTC AACGGCCGCGGTATCCTGA
read_664_density#2 -CAACGGCCGCGGTATCCTGACCGTGCAAAGGTAGCA
read_323764_density#11 -CAACGGCCGCGGTATCCTGACCGTGCAAAGGTAGAT
read_551286_density#27 -CAACGGCCGCGGTATCCTGACC
read_486739_density#32 -CAACGGCCGCGGTATCCTGAC
read_169548_density#1 -AACGGCCGCGGTATCCTGACCGTGCAAAGGTAGCAT
read_804302_density#5 -AACGGCCGCGGTATCCTGACCGTGCAAAGGTAGCAT
read_163560_density#2 -AACGGCCGCGGTATCCTGACCGTGCAAAGGTAGCAA
read_425874_density#1 -AACGGCCGCGGTATCCTGACCGTGCAAAG
read_680865_density#1 -AACGGCCGCGGTATCCTGACCGT
read_165270_density#3 -AACGGCCGCGGTATCCTGACCG
read_402802_density#29 -AACGGCCGCGGTATCCTGACC
read_290862_density#3 -ACGGCCGCGGTATCCTGACCGTGCAAAGGTAGCATC
read_538089_density#1 -ACGGCCGCGGTATCCTGACCGTGCAAAGGTAGCAAT
read_753467_density#1 -ACGGCCGCGGTATCCTGACCGTGCAAAGGT
```

```
read_165673_density#1 -----ACGGCCGCGGTATCCGTACCGTGCA-----
read_266859_density#1 -----ACGGCCGCGGTATCCGTACCGTGC-----
read_528212_density#1 -----ACGGCCGCGGTATCCGTACCGTG-----
read_498635_density#2 -----CGGCCGCGGTATCCGTACCGTGCAAAGGTAGCATAT-----
read_143776_density#1 -----CGGCCGCGGTATCCGTACCGTGCAAAGG-----
read_606406_density#1 -----CGGCCGCGGTATCCGTACCGTGC-----
read_21713_density#1 -----GCCGCGGTATCCGTACCGTGCAAAGGTAGC-----
read_691585_density#1 -----GCCGCGGTATCCGTACCGTGCAAAGG-----
read_261711_density#1 -----GCCGCGGTATCCGTACCGTGCA-----
read_777223_density#1 -----CCGCGGTATCCGTACCGTGCAAAGGTAGC-----
read_93090_density#1 -----CCGCGGTATCCGTACCGTGCA-----
read_555041_density#1 -----GCGGTATCCGTACCGTGCAAAGGTAGCATA-----
read_360976_density#2 -----GCGGTATCCGTACCGTGCAAAGGTAGCA-----
read_818449_density#38 -----GCGGTATCCGTACCGTGCAAAGGTAG-----
read_631065_density#3 -----GCGGTATCCGTACCGTGCAAAGG-----
read_859361_density#1 -----GCGGTATCCGTACCGTGCAAAG-----
read_414921_density#1 -----CGGTATCCGTACCGTGCAAAGGTAGTAT-----
read_112156_density#1 -----CGGTATCCGTACCGTGCAAAGGTAGCATAA-----
read_683970_density#1 -----CGGTATCCGTACCGTGCAAAGGTAGCATA-----
read_404419_density#2 -----CGGTATCCGTACCGTGCAAAGGTAGCAT-----
read_298638_density#2 -----CGGTATCCGTACCGTGCAAAGGTAGC-----
read_642532_density#2 -----CGGTATCCGTACCGTGCAAAGGTAG-----
read_742150_density#9 -----CGGTATCCGTACCGTGCAAAGGTAG-----
read_137194_density#1 -----CGGTATCCGTACCGTGCAAAGGCAGC-----
read_374159_density#1 -----GGTATCCGTACCGTGCCAAAGGTAG-----
read_100713_density#9 -----GGTATCCGTACCGTGCAAAGGTAGCATA-----
read_373665_density#1 -----GGTATCCGTACCGTGCAAAGGTAGCA-----
read_15495_density#7 -----GGTATCCGTACCGTGCAAAGGTAGC-----
read_142970_density#19 -----GGTATCCGTACCGTGCAAAGGTAG-----
read_667231_density#1 -----GGTATCCGTACCGTGCAAAGGTAC-----
read_318152_density#1 -----GGTATCCGTACCGTGCAAAGGTA-----
read_651440_density#1 -----GGTATCCGTACCGTGCAAAGGT-----
read_855708_density#1 -----GGTATCCGTACCGTGCAAAGGGAGCA-----
read_53836_density#1 -----GGTATCCGTACCGTGCAAAGGGAGC-----
read_720292_density#1 -----GGTATCCGTACCGTGCAAAGGAAG-----
read_477032_density#3 -----GGTATCCGTACCGTGCAAAGG-----
read_677156_density#1 -----GGTATCCGTACCGTGCAAAG-----
read_777303_density#1 -----GTGTCCGTACCGCGCAAAGGTAG-----
read_675749_density#1 -----GTATTCGTACCGTGCAAAGGTAGCA-----
read_647780_density#1 -----GTATCCTTACCGTGCAAATGT-----
read_681845_density#1 -----GTATCCTTACCGTGCAAAGGTAG-----
read_37229_density#2 -----GTATCCGTACCGTGCAAGGTAGC-----
read_151851_density#2 -----GTATCCGTACCGTGCAAATGTAGCATA-----
read_8963_density#1 -----GTATCCGTACCGTGCAAATGTAGC-----
read_703695_density#1 -----GTATCCGTACCGTGCAAAGTTAGC-----
read_624422_density#1 -----GTATCCGTACCGTGCAAAGGTATCATA-----
read_417597_density#1 -----GTATCCGTACCGTGCAAAGGTAGCCTC-----
read_734415_density#1 -----GTATCCGTACCGTGCAAAGGTAGCATAAA-----
read_754421_density#3 -----GTATCCGTACCGTGCAAAGGTAGCATAA-----
read_150060_density#41 -----GTATCCGTACCGTGCAAAGGTAGCATA-----
read_455918_density#54 -----GTATCCGTACCGTGCAAAGGTAGCAT-----
read_5785_density#41 -----GTATCCGTACCGTGCAAAGGTAGCA-----
read_475119_density#92 -----GTATCCGTACCGTGCAAAGGTAGC-----
read_716073_density#1 -----GTATCCGTACCGTGCAAAGGTAG-----
read_296624_density#46 -----GTATCCGTACCGTGCAAAGGTAG-----
read_416415_density#10 -----GTATCCGTACCGTGCAAAGGTA-----
read_471102_density#9 -----GTATCCGTACCGTGCAAAGGT-----
read_292263_density#1 -----GTATCCGTACCGTGCAAAGGGAGCATA-----
read_358682_density#1 -----GTATCCGTACCGTGCAAAGGCAGCAT-----
read_267622_density#1 -----GTATCCGTACCGTGCAAAGGCAGCA-----
read_299087_density#1 -----GTATCCGTACCGTGCAAAGGAAGCATA-----
read_510701_density#1 -----GTATCCGTACCGTGCAAAGGA-----
read_211627_density#8 -----GTATCCGTACCGTGCAAAGG-----
read_80162_density#3 -----GTATCCGTACCGTGCAAAG-----
read_131647_density#1 -----GTATCCGTACCGTGCAAAGGTAGCA-----
read_542627_density#1 -----GTATCCGTACCGTGCAA-----
read_541232_density#1 -----GTATCCGTACCGTGCAAAGGA-----
read_724514_density#1 -----GTATCCGTACCGTGCAAAGG-----
read_324506_density#1 -----GGATCCGTACCGTGCAAAGGTAGC-----
```

read\_626551\_density#1 -----TATCCTGACCGTGCCAAGGTAGC-----  
read\_453141\_density#1 -----TATCCTGACCGTGCAACGGTAGC-----  
read\_89928\_density#1 -----TATCCTGACCGTGCAAAGGTAGCATAA--  
read\_373029\_density#8 -----TATCCTGACCGTGCAAAGGTAGCATA--  
read\_473662\_density#4 -----TATCCTGACCGTGCAAAGGTAGCAT---  
read\_304954\_density#1 -----TATCCTGACCGTGCAAAGGTAGCA---  
read\_340274\_density#31 -----TATCCTGACCGTGCAAAGGTAGC-----  
read\_156206\_density#3 -----TATCCTGACCGTGCAAAGGTAGA-----  
read\_261802\_density#12 -----TATCCTGACCGTGCAAAGGTAG-----  
read\_302999\_density#2 -----TATCCTGACCGTGCAAAGGTA-----  
read\_654397\_density#1 -----TATCCTGACCGTGCAAAGGT-----  
read\_424019\_density#1 -----TATCCTGACCGTGCAAAG-----  
read\_598071\_density#1 -----GATCCTGACCTTGCAAAGGTAGC-----  
read\_417990\_density#1 -----CATCCTGACCGTGCAAAGGTAGCAT---  
read\_471812\_density#1 -----ATCCTGTCCGTCCAAAGGTAG-----  
read\_183215\_density#1 -----ATCCTGACCGTGCAAAGGTAGCATA--  
read\_863534\_density#5 -----ATCCTGACCGTGCAAAGGTAGCAT---  
read\_251513\_density#2 -----ATCCTGACCGTGCAAAGGTAGCA---  
read\_633510\_density#7 -----ATCCTGACCGTGCAAAGGTAGC-----  
read\_732806\_density#10 -----ATCCTGACCGTGCAAAGGTAG-----  
read\_798913\_density#1 -----ATCCTGACCGTGCAAAGGTA-----  
read\_419020\_density#1 -----TCCTGACCGTGCAAAGGTAGCATAAT--  
read\_149493\_density#2 -----TCCTGACCGTGCAAAGGTAGCATA--  
read\_178930\_density#2 -----TCCTGACCGTGCAAAGGTAGCAT---  
read\_53690\_density#9 -----TCCTGACCGTGCAAAGGTAGC-----  
read\_769582\_density#1 -----TCCTGACCGTGCAAAGGTAGAC-----  
read\_281293\_density#1 -----TCCTGACCGTGCAAAGGTAAAGC---  
read\_701413\_density#1 -----TCCTGACCGTGCAAAGGTA-----  
read\_19644\_density#1 -----CCTGACCGTGCAAGGTAG-----  
read\_674525\_density#1 -----CCTGACCGTGCAAGGTAGC-----  
read\_109092\_density#1 -----CCTGACCGTGCAAAGGTAGCATA--  
read\_455196\_density#2 -----CCTGACCGTGCAAAGGTAGCA-----  
read\_837988\_density#14 -----CCTGACCGTGCAAAGGTAGC-----  
read\_831481\_density#12 -----CCTGACCGTGCAAAGGTAG-----  
read\_853414\_density#1 -----CCTGACCGTGCAAAGGTA-----  
read\_137070\_density#1 -----CCTGACCGTGCAAAGGCAGC-----  
read\_298351\_density#5 -----CTGACCGTGCAAAGGTAGCATA--  
read\_866606\_density#1 -----CTGACCGTGCAAAGGTAGCAT---  
read\_410387\_density#2 -----CTGACCGTGCAAAGGTAGCA-----  
read\_140455\_density#3 -----CTGACCGTGCAAAGGTAGC-----  
read\_623897\_density#4 -----CTGACCGTGCAAAGGTAG-----  
read\_296328\_density#2 -----TGACCGTGCAAAGGTAGCATAAT--  
read\_32473\_density#1 -----TGACCGTGCAAAGGTAGCATA--  
read\_466060\_density#1 -----TGACCGTGCAAAGGTAGC-----





```
read_519061_density#1 -----AGCAGGGTCGGGCCCTGGTTAGTACTTGTA-----
read_340466_density#1 -----AGCAGGGTCGGGCCCTGGTTAGTACTTGGATGGGATC-----
read_527_density#2 -----AGCAGGGTCGGGCCCTGGT-----
read_485888_density#1 -----GCAGGGTCGGGCCCTGGTTAGTAT-----
read_291518_density#1 -----GCAGGGTCGGGCCCTGGTTAGTACTTGT-----
read_146039_density#1 -----GCAGGGTCGGGCCCTGGTTAGTACTTGC-----
read_234022_density#1 -----GCAGGGTCGGGCCCTGGTTAGTACTTTG-----
read_50440_density#1 -----AGGGTTGGGCCCTGGTTAGTACTTGG-----
read_310443_density#1 -----AGGGTCGGGCCCTGGTTAGTACTTA-----
read_522479_density#1 -----AGGGGCGGGCCCTGGTTAG-----
read_271179_density#1 -----GGGTCGGGCCCTGGTTAGTACTTGGT-----
read_662122_density#1 -----GGGTCGGGCCCTGGTTAGT-----
read_609986_density#1 -----GGCCTGGTTAGTACTTGGATTGGAGA-----
read_873095_density#1 -----GGCCTGGTTAGTACTTGG-----
read_272863_density#1 -----GCTGGTTAGTACTTGGATGGG-----
read_554808_density#1 -----GCTGGTTAGTACTTGGATGGGAGAC-----
read_25516_density#3 -----GCCCTGGTTAGTACTTGGATGGGAG-----
read_415557_density#4 -----GCCCTGGTTAGTACTTGGATGGG-----
read_755814_density#1 -----GCCCTGGTTAGTACTTGGATGG-----
read_369635_density#1 -----CCTGGTTAGTACTTGGATGGGAG-----
read_262879_density#2 -----CCTGGTTAGTACTTGGATGGGA-----
read_638356_density#1 -----CCTGGTTAGTACTTGGATGG-----
read_313158_density#2 -----CTGGTTAGTACTTGGATGGGAGT-----
read_106091_density#2 -----CTGGTTAGTACTTGGATGGGAGAC-----
read_462568_density#2 -----CTGGTTAGTACTTGGATGGGAGA-----
read_11774_density#3 -----CTGGTTAGTACTTGGATGGGAG-----
read_398735_density#1 -----CTGGTTAGTACTTGGATGGGA-----
read_211324_density#2 -----CTGGTTAGTACTTGGATGGG-----
read_302629_density#1 -----TGGTTAGTCCCTTGGATGGGAGA-----
read_632356_density#1 -----TGGTTAGTACTTGGATGGGAGT-----
read_43515_density#1 -----TGGTTAGTACTTGGATGGGAGACA-----
read_480299_density#6 -----TGGTTAGTACTTGGATGGGAGAC-----
read_581954_density#1 -----TGGTTAGTACTTGGATGGGAG-----
read_820577_density#5 -----TGGTTAGTACTTGGATGGGA-----
read_96714_density#4 -----TGGTTAGTACTTGGATGGG-----
read_145442_density#8 -----GGTTAGTACTTGGATGGGAGAC-----
read_700168_density#5 -----GGTTAGTACTTGGATGGGAGA-----
read_583067_density#6 -----GGTTAGTACTTGGATGGGAG-----
read_61817_density#2 -----GGTTAGTACTTGGATGGGA-----
read_525000_density#8 -----GGTTAGTACTTGGATGGG-----
read_381553_density#8 -----GTTAGTACTTGGATGGGAGAC-----
read_180880_density#1 -----GTTAGTACTTGGATGGGAGA-----
read_194494_density#1 -----GTTAGTACTTGGATGGGAG-----
read_114373_density#2 -----TTAGTACTTGGATGGGAGA-----
read_490270_density#4 -----TAGTACTTGGATGGGAGA-----
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```
mmu-mir-709 MI0004693 TGTCCCGTTTCTGCTTCTACTCAGAAAGTGCCTGAGCATAGAACTGTCCTGTTTGAGCAGCACTGGGGAGGCAGAGGCAGGAGGAT--
read_109579_density#1 -----CCAGCACTGGGGAGGCAGAGG-----
read_848008_density#1 -----TCAGCACTCGGGAGGCAGAGG-----
read_115644_density#1 -----CCAGCACTGGGGAGGCAGAGG-----
read_766988_density#1 -----CCAGCACTCGGGAGGCAGAGGCAGGA-----
read_704581_density#3 -----CCAGCACTCGGGAGGCAGAGG-----
read_314770_density#1 -----CAGCACTTGGGAGGCAGAGGCCAG-----
```

```
read_596839_density#1 ----- CAGCACTGGGAGGCAGA -----
read_721311_density#1 ----- CAGCACTGGGAGGTAGA -----
read_217342_density#1 ----- CAGCACTGAGGAGGCAGAGGACAG -----
read_610232_density#1 ----- CAGCACTCTGGAGGCAGAGGC -----
read_356938_density#1 ----- CAGCACTCGGTAGGCAGAGGCAG -----
read_576058_density#1 ----- CAGCACTCGGGAGGCAGAGGCAGGCAG -----
read_380118_density#1 ----- CAGCACTCGGGAGGCAGAGGCAGGA -----
read_667575_density#1 ----- CAGCACTCGGGAGGCAGAGGCAGG -----
read_192439_density#1 ----- CAGCACTCGGGAGGCAGAGGCAGA -----
read_432346_density#3 ----- CAGCACTCGGGAGGCAGAGGCAG -----
read_508440_density#2 ----- CAGCACTCGGGAGGCAGAGG -----
read_180709_density#8 ----- CAGCACTCGGGAGGCAGA -----
read_471353_density#1 ----- CAGCACTCAGGAGGCAGAGGCAGG -----
read_15571_density#1 ----- AGCACTTTGGAGGCAGAGGCAGG -----
read_607578_density#1 ----- AGCACTCGGGAGGCAGAGGCAG -----
read_68470_density#2 ----- AGCACTCGGGAGGCAGAGG -----
read_12933_density#1 ----- AGCACTCGGGAGGCAGAG -----
read_667047_density#1 ----- AGCACTCAGGAGGCAGAGGCA -----
read_714867_density#1 ----- GCACCTGGGAGGCAGAGTCAG -----
read_141361_density#1 ----- GCACCTCGGGAGGCAGAGGC -----
read_406718_density#1 ----- GCACCTCGGGAGGCAGAGG -----
read_32794_density#1 ----- CACTTGGGAGGCAGAGGCAGGAGGATC -----
read_534075_density#1 ----- CACTGGGAGGCAGAGGCAGG -----
read_507428_density#1 ----- CACTCGGGAGGTAGAGGCAGG -----
read_465179_density#1 ----- CACTCGGGAGGCAGAGGC -----
read_364382_density#1 ----- CTGAAGGAGGCAGAGGCAGGAGGAT -----
read_840505_density#1 ----- CTGAAGGAGGCAGAGGCAGGAGGA -----
read_598997_density#1 ----- CTGAAGGAGGCAGAGGCAGGAG -----
read_667775_density#1 ----- CTGAAGGAGGCAGAGGCAGGA -----
read_534476_density#2 ----- ACTGGGGAGGTAGAGGCA -----
read_551573_density#1 ----- ACTGGGGAGGCAGAGTCAG -----
read_546086_density#3 ----- ACTCGGGAGGCAGAGGCA -----
read_768423_density#1 ----- ACTCGGGAGGCAGAAGCAGGA -----
read_363640_density#2 ----- TGAAGGAGGCAGAGGCAGGAGGA -----
read_660853_density#1 ----- TCGGGAGGCAGAGGCAGGGGA -----
read_527658_density#1 ----- TCAGGAGGCAGAGGCAGGAGGA -----
read_44027_density#1 ----- TAGGGAGGCAGAGGCAGG -----
read_740837_density#3 ----- GAAGGAGGCAGAGGCAGGAGGAT -----
read_594153_density#5 ----- GAAGGAGGCAGAGGCAGGAGGA -----
read_695518_density#3 ----- GAAGGAGGCAGAGGCAGGAGG -----
read_112916_density#1 ----- CGGGAGGCAGAGGCAGGA -----
read_36863_density#3 ----- AAGGAGGCAGAGGCAGGAGGAT -----
read_318497_density#2 ----- AAGGAGGCAGAGGCAGGAGGA -----
read_364980_density#1 ----- AGGAGGCAGAGGCAGGAGGAT -----
read_300844_density#1 ----- AGGAGGCAGAGGCAGGAGGA -----
read_333861_density#3 ----- AGGAGGCAGAGGCAGGAGG -----
read_335586_density#2 ----- AGGAGGCAGAGGCAGGAG -----
read_102138_density#1 ----- GAGGCAGAGGCAGGAGGATCA -----
read_382814_density#1 ----- AGGCAGAGGCAGGAGGATC -----
read_827364_density#1 ----- AGGAAGAGGCAGGAGGAT -----
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      10      20      30      40      50      60      70      80      90     100
.....|.....|.....|.....|.....|.....|.....|.....|.....|.....|.....|.....|.....|.....|.....|.....|
mmu-mir-712 MI0004696 TCTCCGCTTCTCCTTCACCCGGGCGGTACCCGCTCCGGCGCCGGCCCGGGACGCCGCGCGGTCCGTGCGCCGATGCGAGTCACCCCGGGTGTTCGA
read_44742_density#1 -----GGGGGTGCCCGCTCCGGCGTCGGCCCGCGGGACGCC-----
read_169099_density#1 -----GCCCCCTCCGGCGTCGGCCCGCGG-----
read_630172_density#1 -----GCCCCCTCCGGCGCCGGCCCGCGGGA-----
read_8391_density#1 -----CCGCTCCGGCGTCGGCCCGC-----
read_731754_density#1 -----GCTCCGGCGTCGGCCCGCGTGACGC-----
read_357176_density#1 -----GCTCCGGCGTCGGCCCGCTGGACGCCGC-----
read_125406_density#1 -----GCTCCGGCGTCGGCCCGCGGGACGCCGACCTCCG-----
read_125036_density#1 -----GCTCCGGCGTCGGCCCGCGGGACGCCCG-----
read_459931_density#2 -----GCTCCGGCGTCGGCCCGCGGGACGCCCG-----
read_578184_density#2 -----GCTCCGGCGTCGGCCCGCGGGACGC-----
read_753929_density#1 -----GCTCCGGCGTCGGCCCGCGGGACG-----
read_519208_density#2 -----GCTCCGGCGTCGGCCCGCGGGAC-----
read_869347_density#3 -----GCTCCGGCGTCGGCCCGCGGGA-----
read_689169_density#1 -----GCTCCGGCGTCGGCCCGCGGG-----
read_638198_density#5 -----GCTCCGGCGTCGGCCCGCGG-----
read_792245_density#1 -----GCTCCGGCGTCAGCCCGCGGG-----
read_873970_density#1 -----TCCGGCGTCGGCCCGCGGGACGCCCGG-----
read_62119_density#1 -----TCCGGCGTCGGCCCGCGGGACGC-----
read_803415_density#1 -----TCCGGCGTCGGCCCGCGGGAC-----
read_661034_density#1 -----TCCGGCGTCGGCCCGCGGGA-----
read_645592_density#1 -----CGGCGTCGGCCCGCGGGACGCCCGG-----
read_411603_density#1 -----CGGCGTCGGCCCGCGGGACGCCGC-----
read_398685_density#6 -----CGGCGTCGGCCCGCGGGACGC-----
read_515039_density#1 -----CGGCGTCGGCCCGCGGGA-----
read_406738_density#1 -----GTCGGCCCGCGGGACGCCCG-----
read_507866_density#1 -----GGCCCGCGGGACGCCCG-----
read_476122_density#1 -----GGCCCGCGGGACGCCCGGTGTCCGTTGCCGATGA-----
read_837448_density#1 -----CGGGACGCCCGGTGTCCGTTGCCG-----
read_507473_density#5 -----GGGACGCCCGGTGTCCGTTGCCGATGC-----
read_148198_density#1 -----GGGACGCCCGGTGTCCGTTGCCGA-----
read_792012_density#1 -----GGGACGCCCGGTGTCCGTTGCCG-----
read_320716_density#3 -----GGACGCCCGGTGTCCGTTGCCGATGCGA-----
read_85140_density#6 -----GGACGCCCGGTGTCCGTTGCCGATGC-----
read_423488_density#1 -----GCCGCGGTGTCCGTTGCCGATGCG-----
read_508946_density#2 -----GGTGTCCGTTGCCGATGCGAG-----

```