

Supplementary tables

miRNAs expressed in gametes and preimplantation embryos in mouse, human and bovine and list of their target genes including repair pathways they are associated with are shown in this table. The expression of miRNA in gametes and preimplantation embryo development is represented by “✓”. If the expression level of miRNA compared to the previous stage of the development is increased (i.e. increased level at the 4-cell stage than the 2-cell stage), this increased expression level is represented by “↑”. If the expression level of miRNA compared to the previous stage of the development is decreased, this reduced expression level is represented by ↓. If there has not been any studies analysing the expression of a miRNA at that particular stage of preimplantation embryo development, this was shown as blank. The reference for miRNAs and target genes have been cited within the table of the miRNA and mRNA target columns [1-8] and in cases where there has not been any study, the predicted targets of miRNAs have been obtained using databases (<http://www.microrna.org/microrna/home.do>, <http://www.targetscan.org/>, <http://mirdb.org/miRDB/>).

- a) Expression profiles of miRNAs in gametes and embryos and their target base excision repair genes.

miRNA	Target repair mRNA	Species	Oocyte	Sperm	Zygote	2-cell	4-cell	8-cell	Morula	Blastocyst
miR-22	<i>UNG,MDC1</i>	Mouse			✓	↑	↑	↑		
miR-96	<i>MBD4</i>	Mouse			✓	↓	↑	↑		
miR-98	<i>ERCC6, DCLRE1B, RAD9A</i>	Mouse			✓	↓	↓	↓		
		Bovine	✓							
miR-101a	<i>TDG, FANCM, POLH,REV3L, UBE2A</i>	Mouse			✓	↓	↑	↑		
miR-101b	<i>TDG, NEIL1, FANCM,POLH, REV3L</i>	Mouse			✓	↓	↑	↑		
miR-103	<i>NEIL1, TDG -103-α,POLH- 103-as</i>	Mouse	✓	✓	✓	↓	↑	↑	↑	
miR-107	<i>TDG, NEIL1</i>	Mouse	✓	✓	✓	↓	↑	↓		
		Bovine	✓							
miR-204	<i>UNG- 5p,POLH, POLK</i>	Mouse			✓	↓	↓	↑	↑	↑
miR-211	<i>UNG,POLH, POLK</i>	Mouse			✓	↓	↑	↓	↑	↓
miR-223	<i>PARP1</i>	Mouse	✓	✓	✓	↓	↑	↓		
		Bovine	✓							
miR-296	<i>MBD4</i>	Mouse			✓	↓	↑	↑		
miR-298	<i>OGG1</i>									
	<i>TDP1</i>	Mouse	✓	✓	✓	↑	↓	↑		

b) Expression profiles of miRNAs in gametes and embryos and their target nucleotide excision repair genes.

miRNA	Target repair mRNA	Species	Oocyte	Sperm	Zygote	2-cell	4-cell	8-cell	Morula	Blastocyst
miR-10a	<i>GTF2H1</i>	Mouse	✓	✓	✓	↓	↓	↓		
		Bovine	✓							
miR-10b	<i>GTF2H1</i>	Mouse	✓	✓	✓	↑	↑	↑		
		Bovine	✓							
miR-15b	<i>ERCC6, RAD23B, DDB2 (LHX3), CHEK1</i>	Mouse	✓	✓			✓	✓	↑	↑
		Bovine	✓							
miR-16	<i>RAD23B, CHEK1, Wip1</i>	Mouse	✓	✓	✓	↓	↓	↓		
		Bovine	✓							
		Human	✓							
miR-20b	<i>RPA2b, CHAF1A, UBE2, FANCD2, POLQ, POLH</i>	Bovine	✓							
miR-23a	<i>CCNH, RAD23B, RAD1, DCLRE1A, UBE2V2, POLH, FANCD2</i>	Mouse	✓	✓	✓	↓	↓	↓		
miR-23b	<i>CCNH, RAD23B, H2AX, RAD1, DCLRE1A, POLH, FANCD1</i>	Mouse	✓	✓	✓	↓	↓	↓		
		Bovine	✓							
miR-130a	<i>ERCC4, GTF2H1, FANCA</i>	Mouse			✓	↓	↑	↑		
		Bovine	✓							
miR-134	<i>ERCC6, RAD18</i>	Mouse	✓	✓	✓	✓	↑	↑		
miR-144	<i>GTF2H2</i>	Mouse			✓	✓	✓	✓		
miR-152	<i>GTF2H1</i>	Mouse			✓	↑	↓	↑		
miR-181c	<i>RAD23B, POLI, POLQ, ATM, FANCM</i>	Mouse			✓	↓	↑	↑		
		Bovine	✓							
miR-192 [9]	<i>ERCC3, ERCC4</i>	Mouse			✓	↑	↓	✓		
		Bovine	✓							
		Human								✓
miR-199a-5p	<i>RAD23B</i>	Mouse			✓	↑	↑	↓		
		Bovine	✓							
miR-199b-5p	<i>RAD23B</i>	Mouse			✓	↓	↑	↓		
miR-215	<i>ERCC4 (XPF)</i>	Mouse			✓	✓	✓	✓		

miR-218	<i>CETN2,RAD1</i>	Mouse			✓	↓	↑	↓		
miR-221	<i>ERCC4 (XPF),RRM2B, FANCD2</i>	Mouse	✓	✓	✓	↓	↑	↓		
miR-222	<i>ERCC4 (XPF),RRM2B, FANCD2</i>	Mouse	✓	✓	✓	↓	↓	↓		
miR-323	<i>DDB1</i>	Mouse			✓	↑	↓	↑		
miR-324-3p	<i>RPA1</i>	Mouse				↓	↑	↑		
miR-345	<i>RPA1</i>	Mouse			✓					
miR-33	<i>ERCC4(XPF)-33a, ERCC6</i>	Mouse			✓	✓	✓	✓		
miR-342	<i>MMS19L (MMS19) - 3P</i>	Mouse	✓	✓	✓	↓	↓	↑		
		Bovine	✓							
miR-345	<i>RPA1</i>	Mouse			✓	↑	↑	↓		
miR-372	<i>ERCC4 (XPF), POLK,RAD18, UBE2B</i>	Human								✓
		Bovine	✓							
miR-373	<i>ERCC4, POLK,UBE2B, RAD18, RAD23B[10] and RAD52[10]</i>	Bovine	✓							
		Human								✓
miR-381	<i>GTF2H1,TP53</i>	Mouse			✓	↑	↓	↓		
		Bovine	✓							
miR-423	<i>DDB2 (LHX3)-423-5p</i>	Bovine	✓							
miR-424	<i>ERCC6, RAD23B, DDB2(LHX3)</i>	Mouse					↓			
		Bovine	✓							
miR-450	<i>ERCC4 (XPF), GTF2H1- b-5b,UBE2A-b-5p, POLQ- b-3p</i>	Mouse			✓	↑	↑	↑		
miR-454	<i>GTF2H1, ERCC4,FANCA</i>	Human								✓
miR-483	<i>GTF2H1</i>	Bovine	✓							
miR-512-3p	<i>ERCC4,POLK</i>	Human								✓
miR-888	<i>GTF2H2,TDP1</i>	Human	✓							
miR-1260	<i>DDB1,RAD18, FANCC</i>	Bovine	✓							

c) Expression profiles of miRNAs in gametes and embryos and their target double strand break repair genes

(<http://www.microrna.org/microrna/home.do>,<http://www.targetscan.org/>,<http://mirdb.org/miRDB/>).

miRNA	Target repair mRNA	Species	Oocyte	Sperm	Zygote	2-cell	4-cell	8-cell	Morula	Blastocyst
miR-1	<i>BRCA1, TDP1</i>	Mouse			✓	↓	↑	↓		
miR-9	<i>MRE11A, PRKDC, POLE, POLI</i>	Mouse			✓	↓	↓	↑		
miR-18	<i>RBBP8, DCLRE1C, ATM</i>	Mouse		✓	✓	↓	↑	↑		
miR-24	<i>H2AX [11], H2AFX</i>	Mouse Human	✓ ✓	✓	✓	↓	↓	↓		↓
miR-34a	<i>EME1</i>	Mouse				↑	↑	↑	↑	
miR-34b	<i>XRCC2 FANCF</i>	Mouse			✓	✓	↑	↑	↓	
		Human	✓							✓
miR-34c	<i>EME1- 5p</i>	Mouse	✓	✓	✓	✓	↑	↑		
		Bovine	✓							
miR-99a	<i>RAD51 and BRCA1 [12, 13]</i>	Mouse	✓	✓	✓	✓	✓	↑		
		Bovine	✓							
miR-99b		?	✓	✓	↑	↑	↑			
miR-125a	<i>BRCA1- 3p MDC1- 5p</i>	Mouse	✓	✓	✓	↑	↑	↑	↑	↑
		Bovine	✓			↑	↓	↑	↓	↓
miR-128a	<i>RAD52 UBE2N</i>	Mouse			✓	✓	✓	↑		
		Bovine	✓							
miR-128b	<i>RAD52 UBE2N</i>	Mouse			✓	✓	✓	↑		
		Bovine	✓							
miR-138 [14]	<i>H2AX</i>	Mouse			✓	↑	↓	↓		
		Bovine	✓							
miR-139	<i>EME1- 5p</i>	Mouse			✓	↓	↑	↓		
miR-140	<i>Artemis</i>	Mouse	✓	✓	✓	↑	↑	↑	↓	↓
		Bovine	✓							
miR-143	<i>EME1- 3p</i>	Bovine	✓							
	<i>POLH</i>									
miR-148a	<i>GTF2H1</i>	Mouse			✓	↑	↓	↑		
		Bovine	✓							
miR-148b	<i>GTF2H1</i>	Mouse			✓	↑	↓	↑		
miR-	<i>PRKDC,POLH</i>	Mouse			✓	↓	↑	↓		

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miR-151	<i>LIG4- 3p</i>	Mouse			✓	↓	↑	↓		
	<i>FANCA- 5p</i>	Human								✓
miR-153	<i>BRCA1</i>	Mouse			✓	✓	✓	✓		
		Bovine	✓							
miR-154	<i>MRE11,PCNA,UBE2A,TDP1,LIG4</i>	Mouse			✓	✓	✓	✓		
miR-190	<i>BRCA1 POLI</i>	Mouse			✓	↓	↓	✓		
		Bovine	✓							
miR-193	<i>RAD51L1- 193a</i>	Mouse			✓	↓	↑	↑	↓	
	<i>DCLRE1C(193a-5p)</i>	Human	✓(a-5p)							✓(b)
miR-198	<i>RAD51</i>	Bovine	✓							
	<i>FANCL</i>									
miR-203	<i>DCLRE1B,RAD18,RAF51,ATM,POLI</i>	Mouse			✓	↓	↑	↑		
miR-224	<i>BRCA1, RAD51L1,TDP</i>	Mouse			✓	↑	↑	↓		
miR-299	<i>DMC1- 3p</i>	Mouse				↑	↑	↑		
miR-363	<i>RAD21</i>	Bovine	✓							
	<i>REV3L, POLK</i>									
miR-377	<i>LIG4</i>	Mouse			✓	✓	✓	✓		
miR-383	<i>Artemis,UBE2N,ATR,EXO1</i>	Mouse			✓	↓	✓	✓		
		Bovine	✓							
miR-384	<i>MRE11A</i>	Mouse			✓	✓	✓	✓		
	<i>FANCM</i>	Bovine	✓							
miR-412	<i>RAD51L1</i>	Mouse			✓	✓	✓	✓		
		Bovine	✓							
miR-449	<i>EME1-449a</i>	Mouse			✓	↑	↓	✓		
miR-625	<i>NBN (NBS1)</i>	Human	✓							
miR-765	<i>RAD52B</i>	Bovine	✓							
miR-1224-5p	<i>RAD50</i>	Bovine	✓							

d) Expression profiles of miRNAs in gametes and embryos and their target mismatch repair genes (<http://www.microrna.org/microrna/home.do>, <http://www.targetscan.org/>, <http://mirdb.org/miRDB/>).

miRNA	Target repair mRNA	Species	Oocyte	Sperm	Zygote	2-cell	4-cell	8-cell	Morula	Blastocyst
miR-26a	<i>POLH, ATM, FANCD2, MSH3 (5p)</i>	Mouse	✓	✓	✓	↓	↑	↓		
		Bovine	✓							
miR-26b	<i>MSH3-5p, POLH, ATM, FANCD2</i>	Mouse			✓	↓	↑	↓		
miR-149	<i>MLH3</i>	Mouse			✓	↑	↓	↑		
		Bovine	✓							
miR-155	<i>MSH2 [15, 16], MSH6 [15, 16], MLH1 [15, 16], FANCD2, FANCF, CHAF1A, DCLRE1A</i>	Mouse			✓	↓	↑	↓		
		Bovine	✓							
miR-219	<i>MLH3- hsa-miR-219-2-3p, UBE2N - 5p, DUT- 1-3p</i>	Mouse			✓	↓	↓	↓		
miR-291-3p	<i>MSH2</i>	Mouse			✓	↑	↑	↑		
miR-340	<i>MLH3, NBN (NBS1), RAD50, Artemis, RRM2B, POLI, REV3L, HEL308</i>	Mouse			✓	↓	↓	↓		
miR-370	<i>MLH3</i>	Mouse			✓	↑	↓	↓		

e) Expression profiles of miRNAs in gametes and embryos and their target double strand break repair and nucleotide excision repair genes.

miRNA	DNA repair pathways	Target repair mRNA	Species	Oocyte	Sperm	Zygote	2-cell	4-cell	8-cell	Morula	Blastocyst
miR-146	NER	<i>RAD23B- b-3p</i>	Mouse								
	DSBR (HR)	<i>BRCA1, BRCA2- a and b-5p</i> [17]				✓	↓	↓	↑		
	Suspected DNA repair function	<i>RECQL5 a and b-5p</i>	Human (miR-146b-5p)								✓
miR-183	NER	<i>GTF2H1</i>	Mouse								
	DSBR (HR)	<i>RAD50</i>				✓	↓	↑	↑		
	Suspected DNA repair function	<i>NEIL3</i>									
miR-185	DSBR (HR)	<i>NBN (NBS1)</i>									
	NER	<i>ERCC6 (CSB)</i>	Mouse			✓	↓	↓	↑		
miR-188	NER	<i>RAD23B- 188-3p</i>	Mouse	✓	✓	✓	↓	↑	↓		
	DSBR (NHEJ)	<i>XRCC5- 5p</i>									
	DNA polymerases	<i>POLH</i>	Bovine	✓							
	Damage response	<i>MDC1- 188-5p</i>									
miR-195	NER	<i>ERCC6 (CSB), RAD23B, DDB2 (LHX3)</i>	Mouse								
	DSBR (HR)	<i>RAD50</i>				✓	↓	↑	↓		
	Cell cycle checkpoint control	<i>Wee1</i>									
miR-301	NER	<i>GTF2H1(a, b), ERCC4 (XPF)</i>	Human								
	DSBR (HR)	<i>RAD51L1-301a and b</i>				✓	↓	↑	↑		
	Genes defective and sensitivity to DNA damaging agents	<i>ERCC4, FANCA- a&b</i>									
miR-328	NER	<i>DDB2 (LHX3)</i>	Mouse								
	DSBR (HR)	<i>RAD51L1</i>				✓	↓	↓	↓		
miR-338	NER	<i>ERCC6- 5P, GTF2H1- 3P</i>	Mouse			✓	✓	↑	↑		

- f) Expression profiles of miRNAs in gametes and embryos and their target nucleotide excision repair and base excision repair genes.

miRNA	DNA repair pathways	Target repair mRNA	Species	Oocyte	Sperm	Zygote	2-cell	4-cell	8-cell	Morula	Blastocyst
miR-30a-3p	NER	<i>GTF2H1, RAD23B</i>	Mouse			✓	↓	↓	↑		
	BER	<i>NEIL2</i>									
	RAD6 pathway	<i>UBE2V2</i>	Human	✓							
miR-30a-5p	NER	<i>GTF2H1, RAD23B</i>	Mouse			✓	↓	↓	↓		
	BER	<i>NEIL2</i>	Human	✓							
	RAD6 pathway	<i>UBE2V2</i>	Bovine	✓							
miR-30b	NER	<i>GTF2H1, RAD23B</i>	Mouse	✓	✓	✓	↓	↓	↓		
	BER	<i>NEIL2</i>	Bovine	✓							
	RAD6 pathway	<i>UBE2V2</i>	Human	✓							
miR-30c	NER	<i>GTF2H1, RAD23B</i>	Mouse	✓	✓	✓	↑	↑	↑	↑	
	RAD6 pathway	<i>UBE2V2</i>	Bovine	✓							
			Human	✓							✓
miR-30d	NER	<i>GTF2H1, RAD23B</i>	Mouse	✓	✓	✓	↓	↓	↓		
	BER	<i>NEIL2</i>	Bovine	✓							
	RAD6 pathway	<i>UBE2V2</i>	Human	✓							
miR-30e	NER	<i>GTF2H1, RAD23B</i>	Mouse			✓	↓	↑	↓		
	BER	<i>NEIL2</i>									
	RAD6 pathway	<i>UBE2V2</i>	Human	✓							
miR-130b	NER	<i>ERCC4, GTF2H1</i>	Mouse			✓	↑	↑	↑		
	BER	<i>PARP1</i>									
	Genes defective and sensitivity to DNA damaging agents	<i>FANCA</i>	Bovine	✓							
miR-132	NER	<i>GTF2H1</i>	Mouse			✓	↑	↑	↑		
	BER	<i>NEIL2</i>									
miR-141	NER	<i>XPC</i>	Mouse			✓	↓	↑	↓		
	BER	<i>PARP2</i>	Human	✓							

	Suspected DNA repair function	<i>DCLRE1B</i> -3P									
miR-335	BER	<i>PARP1</i>	Mouse								
	DSBR (HR)	<i>MRE11A</i>									
	Suspected DNA repair function	<i>RECQL5</i>					↓	↑	↓		
miR-496	DSBR (HR)	<i>RAD51L3</i>	Bovine	✓			↑			↑	↓
	BER	<i>PARP1</i>	Human								

h) Expression profiles of miRNAs in gametes and embryos and their target mismatch repair, double strand break repair and nucleotide excision repair genes.

miRNA	DNA repair pathways	Target repair mRNA	Species	Oocyte	Sperm	Zygote	2-cell	4-cell	8-cell	Morula	Blastocyst
miR-21	MMR	<i>MSH2</i> and <i>MSH6</i> [15, 16]	Mouse			✓	↓	↑	↑		
	DSBR (HR)	<i>RAD51L3</i>	Bovine	✓							
	NER	<i>RPA2</i>	Human	✓							✓
miR-129-5p	MMR	<i>MLH3</i>	Mouse			✓	↑	↑	↑		
	DSBR (HR)	<i>RAD51L1</i> , <i>XRCC2</i>									
	NER	<i>GTF2H1</i>									
miR-142-3p	MMR	<i>MLH3</i> , <i>MSH6</i>	Mouse			✓	✓	✓	✓		
	NER	<i>CCNH</i>									
	DSBR (HR)	<i>NBN (NBS1)</i> , <i>RAD50</i> , <i>RBBP8</i>									
miR-337	NER	<i>GTF2H3-3P</i>	Mouse			✓	✓	↑	↑		
	DSBR (NHEJ)	<i>LIG4-3P</i>									
	DSBR (HR)	<i>NBN (NBS1)-3P</i>									
	MMR	<i>MSH3-5P</i>									
miR-380-3p	NER	<i>ERCC6</i>	Mouse				✓	✓	✓		
	MMR	<i>MSH4</i>									
	DSBR (NHEJ)	<i>XRCC4</i>									
	RAD6 pathway	<i>UBE2B</i>									
	Suspected DNA repair function	<i>DCLRE1B</i>									
	Genes defective and sensitivity to DNA damaging agents	<i>FANCF</i>									
miR-380-5p	MMR	<i>MSH4</i>	Mouse			✓	✓	✓	✓		
	NER	<i>ERCC6</i>									
	DSBR (NHEJ)	<i>XRCC4</i>									
	RAD6 pathway	<i>UBE2B</i>									
	Suspected DNA repair function	<i>DCLRE1B</i>									

	Genes defective and sensitivity to DNA damaging agents	<i>FANCF</i>	Bovine	✓								
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- i) Expression profiles of miRNAs in gametes and embryos and their target nucleotide excision repair, base excision repair and double strand break repair genes.

miRNA	DNA repair pathways	Target repair mRNA	Species	Oocyte	Sperm	Zygote	2-cell	4-cell	8-cell	Morula	Blastocyst
miR-29a	NER	<i>ERCC6</i>	Mouse			✓	↓	↓	↓		
	BER	<i>TDG</i>									
	DSBR (HR)	<i>MRE11A</i>									
	Damage response genes	<i>RAD1</i>									
miR-29b	NER	<i>ERCC6</i>	Mouse			✓	↓	↓	↓		
	DSBR (HR)	<i>MRE11A</i>	Bovine	✓		✓					
	BER	<i>TDG</i>									
	Damage response genes	<i>RAD1</i>									
miR-29c	NER	<i>ERCC6</i>	Mouse			✓	↑	↑	↑	↑	
	BER	<i>TDG</i>									
	DSBR (HR)	<i>MRE11A</i>									
	Damage response genes	<i>RAD1</i>									
miR-124a	NER	<i>RAD23B</i>	Mouse	✓	✓	✓	↑	↓	↑		
	BER	<i>APEX2</i>									
	DSBR (HR)	<i>RAD51-124a and b</i>									
	Damage response genes	<i>RAD17</i>	Bovine	✓							
miR-200a	NER	<i>XPC</i>	Mouse			✓	↓	↓	↓		
	BER	<i>PARP2</i>									
	DSBR (HR)	<i>BRCA1</i>									
	Suspected DNA repair function	<i>RECQL5, XPC</i>									
	Genes defective and sensitivity to DNA damaging agents	<i>ATM</i>									
miR-212	DSBR (HR)	<i>RAD50, BRCA1</i>	Mouse			✓	✓	↑	↑		
	NER	<i>GTF2H1</i>	Human	✓							
	BER	<i>NEIL2</i>									
miR-217	NER	<i>ERCC6 (CSB), GTF2H2</i>	Mouse			✓	↑	↓	✓		
	BER	<i>TDG</i>									
	DSBR (HR)	<i>MRE11A</i>									
	DNA polymerases	<i>POLH,</i>									

		<i>PCNA</i>									
	Genes defective and sensitivity to DNA damaging agents	<i>ATM</i>									
miR-330	NER	<i>GTF2H1-3P</i>	Mouse			✓	✓	↑	↓		
	BER	<i>TDG-3P</i>									
	DSBR (NHEJ)	<i>LIF4-3P</i>									

- j) Expression profiles of miRNAs in gametes and embryos and their target genes involved in all repair pathways; mismatch repair, double strand break repair, nucleotide excision repair and base excision repair genes.

miRNA	DNA repair pathways	Target repair mRNA	Species	Oocyte	Sperm	Zygote	2-cell	4-cell	8-cell	Morula	Blastocyst
miR-136	MMR	<i>MSH3</i>	Mouse								
	DSBR (HR)	<i>RAD51L1</i>									
	DNA polymerases	<i>POLH</i>									
miR-210	MMR	<i>MS2</i>	Mouse	✓	✓		↑	↑	↓		
	DSBR (HR)	<i>RAD52</i>									
miR-182	MMR	<i>MSH4</i>	Mouse	✓	✓	✓	↓	↓	↑		
	NER	<i>ERCC8 (CSA)</i>	Bovine	✓							
	DSBR	<i>BRCA1 [17], PARP1 [12, 17]</i>									
miR-409	NER	<i>ERCC4 (XPF) - 3p</i>	Mouse								
	MMR	<i>MSH6-3p</i>									
	Suspected DNA repair function	<i>DCLRE1B-3P</i>									
miR-7	MMR	<i>MSH3</i>	Mouse				✓	✓	↑	↓	
	BER	<i>PARP1</i>									
miR-31	DSBR (NHEJ)	<i>XRCC5</i>	Mouse				✓	↓	↓	↓	
	BER	<i>PARP1</i>									

k) Expression profiles of miRNAs in gametes and embryos and their target genes that are not involved in DNA repair.

miRNA	Expression of miRNAs in gametes and preimplantation embryo development								
	Species	Oocyte	Sperm	Zygote	2-cell	4-cell	8-cell	Morula	Blastocyst
miR-7b	Mouse			✓	✓	✓	✓		
miR-16-5p	Mouse			✓					
miR-17	Human								✓
miR-30	Human	✓							
	Bovine	✓							
miR-122a	Mouse			✓	↑	↑	↓		
	Bovine	✓							
miR-126	Bovine	✓							
miR-126-3p	Mouse			✓	↓	↑	↑		
miR-126-5p	Mouse			✓	↑	↑	↓		
miR-133a	Mouse	✓	✓	✓	↑	↑	↑		
miR-133b	Mouse			✓	✓	✓	↑		
miR-184	Mouse	✓	✓	✓	↓	↓	↑		
miR-187	Mouse			✓	↑	↑	↓		
miR-189	Mouse			✓	✓	✓	✓		
miR-196a	Mouse			✓	↓	↑	↑		
miR-196b	Mouse			✓	✓	↑	↑		
miR-201	Mouse			✓	✓	✓	✓		
miR-202	Mouse			✓	↑	↓	↑		
miR-202-5p	Bovine	✓							
miR-205	Mouse			✓	↓	↓	↑		
	Bovine	✓							
miR-206c	Mouse	✓	✓	✓	↓	↓	↑		
	Bovine	✓							
miR-207	Mouse			✓	↓	↑	↓		
	Bovine	✓							
miR-213	Mouse			✓	✓	✓	✓		
miR-214	Mouse	✓	✓	✓	↓	↓	↓		
	Bovine	✓							

miR-290	Mouse			✓	↓	↑	↑	↑	↑
miR-290-5p	Bovine	✓							
miR-291-5p	Mouse				↑	↑	↑		
miR-292-3p	Mouse			✓	↓	↑	↑		
	Bovine	✓							
miR-292-5p	Mouse			✓	↑	↑	↑	↑	
miR-293	Mouse			✓	↓	↑	↑		
miR-294	Mouse			✓	↓	↑	↑		
miR-295	Mouse			✓	↓	↑	↑		
miR-322-3p	Mouse			✓	↑	↓	↑		
miR-322-5p	Mouse			✓	↑	↑	↑		
miR-324-5p	Mouse			✓	↓	↑	↓		
miR-325	Mouse				✓	✓	✓		
miR-326	Mouse			✓	↓	↑	↑		
miR-329	Mouse	✓	✓	✓	↑	↓	↑		
	Bovine	✓							
miR-339	Mouse			✓	↓	↑	↑		
	Bovine	✓							
miR-339-5p	Human	✓							
miR-344	Mouse			✓	✓	↑	↑		
miR-346	Mouse			✓	↑	↓	↓		
miR-350	Mouse			✓	↑	↑	↓		
miR-351	Mouse			✓	↑	↑	↑		
miR-371-3p	Human								✓
miR-374	Human								✓
miR-375	Mouse		✓	✓	✓	✓	✓		
	Bovine	✓							
miR-411	Mouse			✓	↓	↓	✓		
	Bovine	✓							
miR-455-3p	Bovine	✓							
miR-467a	Bovine	✓							
miR-470	Bovine	✓							
miR-484	Bovine	✓							

	Human								✓
miR-486-5p	Human	✓							
miR-512-5p	Bovine	✓							
miR-517	Human								✓
miR-518b	Bovine	✓							
miR-541	Bovine	✓							
miR-542-5p	Bovine	✓							
miR-547	Bovine	✓							
miR-602	Human	✓							
miR-638	Bovine	✓							
miR-662	Human	✓							
miR-663	Bovine	✓							
miR-705	Bovine	✓							
miR-709	Bovine	✓							
miR-712	Bovine	✓							
miR-720	Human								✓
miR-721	Bovine	✓							✓
miR-768	Human	✓							
miR-762	Bovine	✓							✓
miR-886-3p	Human								✓
miR-923	Bovine	✓							
miR-939	Bovine	✓							
miR-1228-3p	Bovine	✓							
miR-1274	Human								✓
	Bovine	✓							
miR-1275	Bovine	✓							
	Human								✓
miR-1280	Bovine	✓							
miR-1308	Bovine	✓							
miR-1826	Bovine	✓							

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