

miR-1, miR-10b, miR-155 and miR-191 are novel regulators of BDNF

Cellular and Molecular Life Sciences

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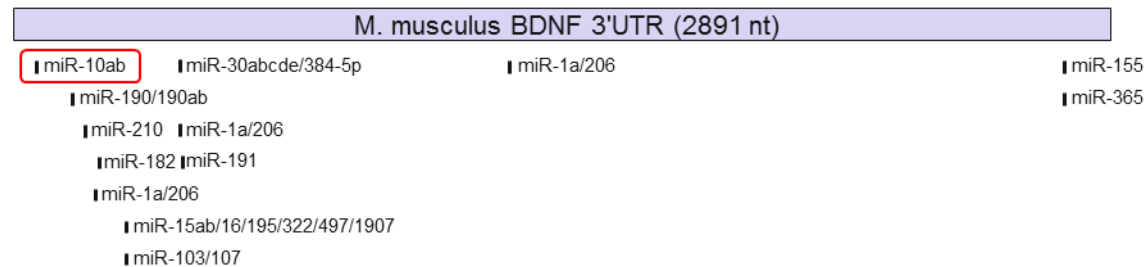
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Online resource 2

Alignment of conserved miR target sites within BDNF 3'UTR spanning 20 nt upstream and 20 nt downstream of the miR seed sequence

miR-10ab (*Mus musculus* BDNF 3'UTR nt pos 59-66)

miRs from broadly conserved miR families predicted to bind BDNF 3'UTR



<i>M. musculus</i> (mouse)	U-CUAUUUGUAUAUACAUAACAGGGUAAAUAUUCAGUUAAGAAAAA
<i>H. sapiens</i> (human)	U-CUAUUUGUAUAUACAUAACAGGGUAAAUAUUCAGUUAAGAAAAA
<i>P. troglodytes</i> (chimpanzee)	U-CUAUUUGUAUAUACAUAACAGGGUAAAUAUUCAGUUAAGAAAAA
<i>M. mulatta</i> (rhesus macaque)	U-CUAUUUGUAUAUACAUAACAGGGUAAAUAUUCAGUUAAGAAAAA
<i>O. garnettii</i> (bushbaby)	U-CUAUUUGUAUAUACAUAACAGGGUAAAUAUUCAGUUAAGAAAAA
<i>T. belangeri</i> (treeshrew)	N-CUAUUUGUAUAUACAUAACAGGGUAAAUAUUCAGUUAAGAAAAA
<i>R. norvegicus</i> (rat)	U-CUAUUUGUAUAUACAUAACAGGGUAAAUAUUCAGUUAAGAAAAA
<i>C. porcellus</i> (guinea pig)	U-CUAUUUGUAUAUACAUAACAGGGUAAAUAUUCAGUUAAGAAAAA
<i>O. cuniculus</i> (rabbit)	U-CUAUUUGUAUAUACAUAACAGGGUAAAUAUUCAGUUAAGAAAAA
<i>S. araneus</i> (shrew)	U-CUAUUUGUAUAUACAUAACAGGGUAAAUAUUCAGUUAAGAAAAA
<i>E. europaeus</i> (hedgehog)	U-CUAUUUGUAUAUACAUAACAGGGUAAAUAUUCAGUUAAGAAAAA
<i>C. l. familiaris</i> (dog)	U-CUAUUUGUAUAUACAUAACAGGGUAAAUAUUCAGUUAAGAAAAA
<i>F. catus</i> (cat)	U-CUAUUUGUAUAUACAUAACAGGGUAAAUAUUCAGUUAAGAAAAA
<i>E. f. caballus</i> (horse)	U-CUAUUUGUAUAUACAUAACAGGGUAAAUAUUCAGUUAAGAAAAA
<i>B. taurus</i> (cow)	U-CUAUUUGUAUAUACAUAACAGGGUAAAUAUUCAGUUAAGAAAAA
<i>D. rerio</i> (zebrafish)	U-CUAUUUGUAUAUACAUAACAGGGUAAAUAUUCAGUUAAGAAAAA
<i>L. africana</i> (elephant)	U-CUAUUUGUAUAUACAUAACAGGGUAAAUAUUCAGUUAAGAAAAA
<i>E. telfairi</i> (tenrec)	U-CUAUUUGUAUAUACAUAACAGGGUAAAUAUUCAGUUAAGAAAAA
<i>M. domestica</i> (opossum)	U-CUAUUUGUAUAUACAUAACAGGGUAAAUAUUCAGUUAAGAAAAA
<i>O. anatinus</i> (platypus)	U-CUAUUUGUAUAUACAUAACAGGGUAAAUAUUCAGUUAAGAAAAA
<i>A. carolinensis</i> (lizard)	U-CUAUUUGUAUAUACAUAACAGGGUAAAUAUUCAGUUAAGAAAAA
<i>X. tropicalis</i> (frog)	U-CUAUUUGUAUAUACAUAACAGGGUAAAUAUUCGUAAGAAAAAG

miR-190/190ab (*Mus musculus* BDNF 3'UTR nt pos 155-161)

miRs from broadly conserved miR families predicted to bind BDNF 3'UTR

M. musculus BDNF 3'UTR (2891 nt)	
miR-10ab miR-190/190ab miR-210 miR-182 miR-1a/206 miR-15ab/16/195/322/497/1907 miR-103/107 miR-30abcde/384-5p miR-1a/206	miR-155 miR-365
<i>M. musculus</i> (mouse) <i>H. sapiens</i> (human) <i>P. troglodytes</i> (chimpanzee) <i>M. mulatta</i> (rhesus macaque) <i>O. garnettii</i> (bushbaby) <i>T. belangeri</i> (treeshrew) <i>R. norvegicus</i> (rat) <i>C. porcellus</i> (guinea pig) <i>O. cuniculus</i> (rabbit) <i>S. araneus</i> (shrew) <i>E. europaeus</i> (hedgehog) <i>C. l. familiaris</i> (dog) <i>F. catus</i> (cat) <i>E. f. caballus</i> (horse) <i>B. taurus</i> (cow) <i>D. rerio</i> (zebrafish) <i>L. africana</i> (elephant) <i>E. telfairi</i> (tenrec) <i>M. domestica</i> (opossum) <i>O. anatinus</i> (platypus) <i>A. carolinensis</i> (lizard) <i>X. tropicalis</i> (frog)	<pre> UUCUACAAUCUAUUUAUUGGACAUAUCCAUG-AC-CUGAAAGG-AAA-----CAG UUCUACAAUCUAUUUAUUGGACAUGUCCAUG-AC-CAGAAGGG-AAA-----CAG UUCUACAAUCUAUUUAUUGGACAUGUCCAUG-AC-CAGAAGGG-AAA-----CAG UUCUACAAUCUAUUUAUUGGACAUGUCCAUG-AC-CAGAAGGG-AAA-----CAG UUCUACAAUCUAUUUAUUGGACAUAUCCAUG-AC-CAGAAGGG-AAA-----CAG UUCUACAAUCUAUUUAUUGGACAUAUCCAUG-AC-CAGAAGGG-AAA-----CAG UUCUACAAUCUAUUUAUUGGACAUAUCCAUG-AC-CAGAAAG--AAA-----CAG UUCUACAACCUAUUUUAUUGGACAUAUCCAUG-AC-CAGAAGGAAAAA-----CAG UUCUACAAUCUAUUUAUUGGACAUAUCCAUG-AC-CAGAAGGG-AAA-----CAG UUCUACAAUCUAUUUAUUGGACAUAUCCAUG-AC-CAGAAGGG-AAA-----CAG UUCUACAAUCUAUUUAUUGGACAUAUCCAUG-AC-CAGAAGGG-AAA-----CAG UUCUACAAUCUAUUUAUUGGACAUAUCCAUG-AC-CAGAAGGG-AAA-----CAG UUCUACAGUCUGUUUAUUGGACAGAUCCAUG-AC-CAGAAGGG-AAA-----CAG UUCUACAAUCUAUUUAUUGGACAUAUCCAUG-AC-CAGAAGGG-AAA-----CAG UUCUACAAUCUAUUUAUUGGACAUAUCCAUGUACA-CAGAAGGA-AAA-----CAG UUCUACAAUCUAUUUAUUGGACAUAUCCAUG-AC-CAGAAGGG-AAA-----CAG UUCUACACUCUAUUUAUUGGACAUAUCCUG-AC-CAGAAGGG-AAA-----CAG UUCUACAAUCUAUUUAUUGAACAUUCCAUG-AC-CUGAAGGG-AAA-----CAG UUCUACAAUCUAUUUAUUGAACAUUCCAUG-AC-CUGAAGGG-AAA-----UAG UUCACAAUCUAUUUAUUGAACAUUCCAUG-AC-CUAGAGGG-GAACAAAAGGAGGAAAAAAGAUAU UUCUACAAUCUAUUUAUUGAACAUUCCAUA-AC--AUAAAGA-AAC-----CAG </pre>

miR-210 (*Mus musculus* BDNF 3'UTR nt pos 189-195)

miRs from broadly conserved miR families predicted to bind BDNF 3'UTR

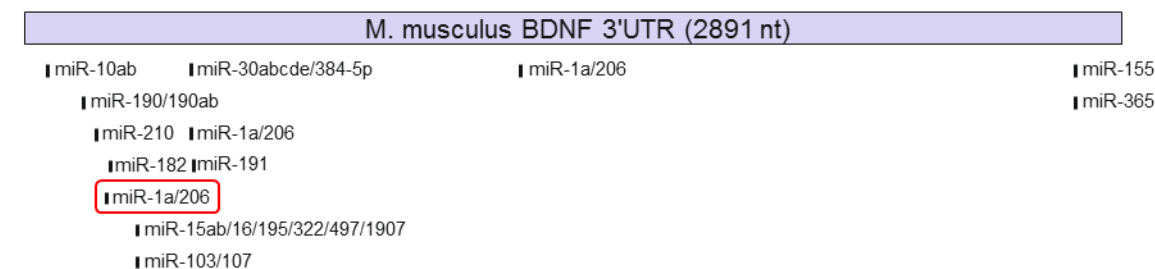
M. musculus BDNF 3'UTR (2891 nt)

| miR-10ab | miR-30abcde/384-5p | miR-1a/206 | miR-155
 | miR-190/190ab |
 | miR-210 | miR-1a/206 | miR-365
 | miR-182 | miR-191 |
 | miR-1a/206 |
 | miR-15ab/16/195/322/497/1907 |
 | miR-103/107 |

<i>M. musculus</i> (mouse)	UGAAAGG-AAA-----CAG--UCAUU--U-GCGCACAACUUU-----AAAA-----G-----UCUGCAUUACA
<i>H. sapiens</i> (human)	AGAAGGG-AAA-----CAG--UCAUU--U-GCGCACAACUUU-----AAAA-----A-----UCUGCAUUACA
<i>P. troglodytes</i> (chimpanzee)	AGAAGGG-AAA-----CAG--UCAUU--U-GCGCACAACUUU-----AAAA-----A-----G-----UCUGCAUUACA
<i>M. mulatta</i> (rhesus macaque)	AGAAGGG-AAA-----CAG--UCAUU--U-GCGCACAACUUU-----AAAA-----A-----G-----UCUGCAUUACA
<i>O. garnettii</i> (bushbaby)	AGAAGGG-AAA-----CAG--UCAUU--U-GCGCACAACUUUGAAAAA-----A-----G-----UUUGCAUUACA
<i>T. belangeri</i> (treeshrew)	AGAAGGG-AAA-----CAG--UCAUU--U-GCGCACAACUUU-----ACAA-----A-----G-----UCUGCAUUACA
<i>R. norvegicus</i> (rat)	AGAAAG-AAA-----CAG--UCAUU--U-GCGCACAACUUU-----AAAA-----G-----UCUGCAUUACA
<i>C. porcellus</i> (guinea pig)	AGAAGGAAAAA-----CAG--UCAUU--U-GCGCACAACUUU-----AAAC-----A-----AAAAGUCUGCAUUACA
<i>O. cuniculus</i> (rabbit)	AGAAGGG-AAA-----CAG--UCAUU--U-GCGCACAACUUU-----AAAA-----U-----G-----UCUGCAUUACA
<i>S. araneus</i> (shrew)	AGAAGGG-AAA-----CAG--UCAUU--UU-GCGCACAACUUA-----AAAA-----AAAAA-----AAG-----UCUGCAUUACA
<i>E. europaeus</i> (hedgehog)	AGAAGGG-AAA-----CAG--UCAUU--UUUGCGCACAACUUU-----AAAA-----A-----G-----UCUGCAUUACA
<i>C. l. familiaris</i> (dog)	AGAAGGG-AAA-----CAG--UCAUU--UU-GCGCACAACUUU-----AAAA-----A-----G-----UCUGCAUUACA
<i>F. catus</i> (cat)	AGAAGGG-AAA-----CAG--UCAUU--UU-GCGCACAACUUU-----AAAA-----A-----G-----UCUGCAUUUCA
<i>E. f. caballus</i> (horse)	AGAAGGG-AAA-----CAG--UCAUU--UC-GCGCACAACUUU-----AAAA-----A-----A-----UCUGCAUUACA
<i>B. taurus</i> (cow)	AGAAGGG-AAA-----CAG--UCAUUUUUU-GCGCACAACUUU-----AAAA-----A-----G-----UCUGCUUUACA
<i>D. rerio</i> (zebrafish)	AGAAGGA-AAA-----CAG--UCAUU--U-GCGCACAACUUU-----AAAA-----A-----G-----UCUGCAUUACA
<i>L. africana</i> (elephant)	AGAAGGG-AAA-----CAG--UCAUU--U-GCGCACAACUUU-----AAA-----A-----G-----UCUGCAUUACA
<i>E. telfairi</i> (tenrec)	AGAAGGG-AAA-----CAG--UCAUU--C-GCGCACAACUU-----AAA-----A-----G-----UCUGCAUUACA
<i>M. domestica</i> (opossum)	UGAAGGG-AAA-----CAGAGUCAUU--U-GCGCACAACUGA-----AAAA-----AAAAA-----UAAG-----UCUGCAUUACA
<i>O. anatinus</i> (platypus)	UGAAGGG-AAA-----UAG--UCAUU--U-GCGCACAACUUA-----AAAA-----AAAAACAACAAUAAG-----UCUGCAUUACA
<i>A. carolinensis</i> (lizard)	UAGAGGG-GAAACAAAGGAGGAAAAAAGAUU--CCAUU--U-GCGCACAACUUU-----GAGAAACAAACAA-----A-----UUUGCAUUACA
<i>X. tropicalis</i> (frog)	AUAAAGA-AAC-----CAGAGUCAUC--U-GUGCACAACUGUA-----A-AA-----A-----G-----CCUGCGUUAUG

miR-1a/206, site 1 (*Mus musculus* BDNF 3'UTR nt pos 213-219)

miRs from broadly conserved miR families predicted to bind BDNF 3'UTR



<i>M. musculus</i> (mouse)	CAACUUU	----	AAAA	-----	G	-----	UCUGCAUU	ACAUCC	UCGAUAAU	--	GUUGUGGUUUUG		
<i>H. sapiens</i> (human)	CAACUU	----	AAAA	-----	A	-----	G	-----	UCUGCAUU	ACAUCC	UGAUAAU	--	GUUGUGGUUUUG
<i>P. troglodytes</i> (chimpanzee)	CAACUU	----	AAAA	-----	A	-----	G	-----	UCUGCAUU	ACAUCC	UGAUAAU	--	GUUGUGGUUUUG
<i>M. mulatta</i> (rhesus macaque)	CAACUUU	----	AAAA	-----	A	-----	G	-----	UCUGCAUU	ACAUCC	UGAUAAU	--	GUUGUGGUUUUG
<i>O. garnettii</i> (bushbaby)	CAACUUUGAAAA	AAAA	----	A	-----	G	-----	UUUGCAUU	ACAUCC	UCGAUAAU	--	GUUGUGGUUUUG	
<i>T. belangeri</i> (treeshrew)	CAACUUU	----	ACAA	-----	A	-----	G	-----	UCUGCAUU	ACAUCC	UCGAUAAU	--	GUUGUGGUUUUG
<i>R. norvegicus</i> (rat)	CAACUUU	----	AAAA	-----	G	-----	UCUGCAUU	ACAUCC	UCGAUAAU	--	GUUGUGGUUUUG		
<i>C. porcellus</i> (guinea pig)	CAACCUU	----	AAAC	-----	A	-----	AAAAG	UCUGCAUU	ACAUCC	UCGAUCAU	--	GUUGUGGUUUUG	
<i>O. cuniculus</i> (rabbit)	CAACUUU	----	AAAA	-----	U	-----	G	-----	UCUGCAUU	ACAUCC	CAAUAAAC	--	GUUGUGGUUUUG
<i>S. araneus</i> (shrew)	CAACUUA	----	AAAA	-----	AAAAA	-----	AAG	-----	UCUGCAUU	ACAUCC	UCGAUAAU	--	GUUGUGGUUUUG
<i>E. europaeus</i> (hedgehog)	CAACUUU	----	AAAA	-----	A	-----	G	-----	UCUGCAUU	ACAUCC	UAAUAAU	GU	---GGUUUGU
<i>C. l. familiaris</i> (dog)	CAACUUU	----	AAAA	-----	A	-----	G	-----	UCUGCAUU	ACAUCC	UCGAUAAU	GUUGUGGUUUUG	
<i>F. catus</i> (cat)	CAACUUU	----	AAAA	-----	A	-----	G	-----	UCUGCAUU	CAUCC	UCGAUAAU	--	GUUGUGGUUUUG
<i>E. f. caballus</i> (horse)	CAACUUU	----	AAAA	-----	A	-----	A	-----	UCUGCAUU	ACAUCC	UCGAUAAU	--	GUUGUGGUUUUG
<i>B. taurus</i> (cow)	CAACUUU	----	AAAA	-----	A	-----	G	-----	UCUGUUU	ACAUCC	CUC	---AAU	--GUUGUGGUUUUG
<i>D. rerio</i> (zebrafish)	CAACUUU	----	AAAA	-----	A	-----	G	-----	UCUGCAUU	ACA			
<i>L. africana</i> (elephant)	CAACUUU	----	AAA	-----	A	-----	G	-----	UCUGCAUU	ACAUCC	UCGAUCAU	--	GUUGUGGUUUUG
<i>E. telfairi</i> (tenrec)	CAACUU	----	AAA	-----	A	-----	G	-----	UCUGCAUU	ACAUCC	UCGAUAAAC	--	GUUGUGGUUUUG
<i>M. domestica</i> (opossum)	CAACUGA	----	AAAA	-----	AAAAA	-----	UAG	-----	UCUGCAUU	ACAUCC	UCGAUAAAC	--	AUUGUGGUUUUG
<i>O. anatinus</i> (platypus)	CAACUUA	----	AAAA	-----	AAAAACAACAAA	UAG	-----	UCUGCAUU	ACAUCC	UCGAUAAAC	--	AUUGUGGUUUUG	
<i>A. carolinensis</i> (lizard)	CAACUUU	----	GAGAAACAAAACAA	-----	A	-----	UUUGCAUU	ACAUCC	CUC	---UAAC	--	AUUGUGGUUUUG	
<i>X. tropicalis</i> (frog)	CAAUGUA	----	A-AA	-----	A	-----	G	-----	CCUGUGUUA	UGUCCU	CAAUAAAC	--	AUUGUGGUUUUG

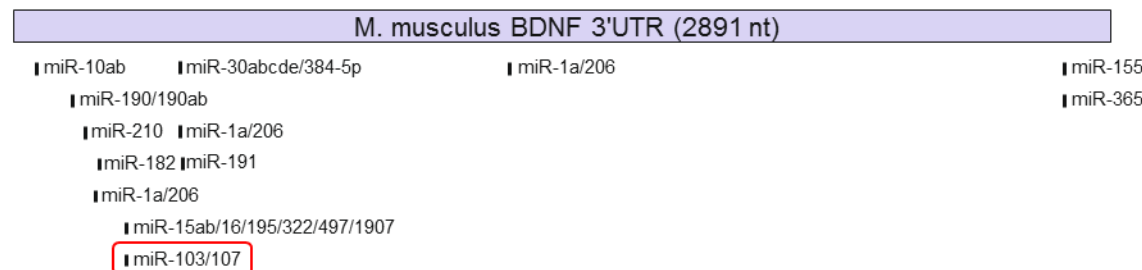
miR-182 (*Mus musculus* BDNF 3'UTR nt pos 245-251)

miRs from broadly conserved miR families predicted to bind BDNF 3'UTR

M. musculus BDNF 3'UTR (2891 nt)			
miR-10ab	miR-30abcde/384-5p	miR-1a/206	miR-155
miR-190/190ab			miR-365
miR-210	miR-1a/206		
miR-182	miR-191		
miR-1a/206			
miR-15ab/16/195/322/497/1907			
miR-103/107			
<i>M. musculus</i> (mouse)	AAU--GUUGUGGUUUUGUCCG	UUGCCAA	GAAUUGAAAA-C-----AAAAA-----GUUU
<i>H. sapiens</i> (human)	AAU--GUUGUGGUUUUGUCCG	UUGCCAA	GAACUGAAAA-CAU-----AAAAA-----GUU-
<i>P. troglodytes</i> (chimpanzee)	AAU--GUUGUGGUUUUGUCCG	UUGCCAA	GAAUUGAAAA-CAU-----AAAAA-----GUU-
<i>M. mulatta</i> (rhesus macaque)	AAU--GUUGUGGUUUUGUCCG	UUGCCAA	GAAUUGAAAA-CAU-----AAAAA-----GUUU
<i>O. garnettii</i> (bushbaby)	AAU--GUUGUGGUUUUGUCCG	UUGCCAA	GAAUUGAAAA-CAU-----AAAAA-----GUUA
<i>T. belangeri</i> (treeshrew)	AAU--GUUGUGGUUUUGUCCG	UUGCCAA	GAAUUGAAAA-CAU-----AAAAA-----GUUU
<i>R. norvegicus</i> (rat)	AAU--GUUGUGGUUUUGUCCG	UUGCCAA	GAAUUGAAAA-C-----AAAAA-----GUUA
<i>C. porcellus</i> (guinea pig)	CAU--GUUGUGGUUUUGUCCG	UUGCCAA	GAAUCGAAAA-CAU-----AAAAA-----GUUU
<i>O. cuniculus</i> (rabbit)	AAC--GUUGUGGUUUUGUCCA	UUGCCAA	GAAUUGAAAA-CAU-----AAAAA-----GUU-
<i>S. araneus</i> (shrew)	AAU--GUUGUGGUUUUGUCCG	UUGCCAA	GAAUUGAAAA-CGU-----AAAAA-----GUUU
<i>E. europaeus</i> (hedgehog)	AAU--GU---GGUUUGUUGCCG	UUGCCAA	GAAUUGAAAA-CGU-----AAAAA-----GUUU
<i>C. l. familiaris</i> (dog)	AAU--GUUGUGGUUUUGUCCG	UUGCCAA	GAAUUGAAAA-CGU-----AAAAA-----GUCU
<i>F. catus</i> (cat)	AAU--GUUGUGGUUUUGUCCG	UUGCCAA	GAAUUGAAAA-CGU-----AAAAA-----GUUU
<i>E. f. caballus</i> (horse)	AAU--GUUGUGGUUUUGUCCG	UUGCCAA	GAAUUGAAAA-CGU-----AAAAA-----GUUU
<i>B. taurus</i> (cow)	AAU--GUUGUGGUUUUGUCCG	UUGCCAA	GAAUUGAAAAACGU-----AAAAA-----GUUU
<i>D. rerio</i> (zebrafish)			
<i>L. africana</i> (elephant)	CAU--GUUGUGGUUUUGUCCG	UUGCCAA	GAAUUGAAAA-CGU-----AAAAA-----GUUA
<i>E. telfairi</i> (tenrec)	AAC--GUUGUGGUUUUGUCCG	UUGCCAA	GAAUUGAAAA-CGU-----AAAAA-----GUUU
<i>M. domestica</i> (opossum)	AAC--AUUGUGGUUUUGUCCG	UUGCCAA	GAAUUGAAAA-CGUUAAAAA-----GUUG
<i>O. anatinus</i> (platypus)	AAC--AUUGUGGUUUUGUCCG	UUGCCAA	GAAUUGAAAA-CGU-----AAAAA-----GUUG
<i>A. carolinensis</i> (lizard)	AAC--AUUGUGGUUUUGUCCA	UUGCCAA	GAAUUGAAAA-CGA-----UAAAA-----
<i>X. tropicalis</i> (frog)	AAC--AUUGUGGUUUUGUGUG	UUGCCAA	GAAUUGAAAAAGCAU-----AAAAA-----

miR-103/107 (*Mus musculus* BDNF 3'UTR nt pos 294-300)

miRs from broadly conserved miR families predicted to bind BDNF 3'UTR



<i>M. musculus</i> (mouse)	AAAAA-----AUAU-----AAU-AA---AUUG-CAUGCUGC	UUUAAUUGUGAAUUGAU-AA-U
<i>H. sapiens</i> (human)	AAAAA-----AU-----AAU-AA---AUUG-CAUGCUGC	UUUAAUUGUGAAUUGAU-AA-U
<i>P. troglodytes</i> (chimpanzee)	AAAAA-----AU-----AAU-AA---AUUG-CAUGCUGC	UUUAAUUGUGAAUUGAU-AA-U
<i>M. mulatta</i> (rhesus macaque)	AAAAA-----AU-----AAU-AA---AUUG-CAUGCUGC	UUUAAUUGUGAAUUGAU-AA-U
<i>O. garnettii</i> (bushbaby)	AAAAA-----AAAAUAAGAAU-AA---AUUGGC	AUGCUGC UUUAAUUGUGA-UUGAU-A--U
<i>T. belangeri</i> (treeshrew)	AAAU-----AU-----AAU-AA---AUUG-CAUGCUGC	UUUAAUUGUGAAUUGAU-AAAU
<i>R. norvegicus</i> (rat)	AAAAA-----U-----AAU-AA---AUUG-CAUGCUGC	UUUAAUUGUGAAUUGAU-AA-U
<i>C. porcellus</i> (guinea pig)	AAAAA-----UUACU-----AAU-AA---AUUG-CAUGCUGC	UUUAAUUGUGAAUUGAU-AA-U
<i>O. cuniculus</i> (rabbit)	AAAAA-----AU-----AAU-AA---AUUG-CAUGCUGC	UUUAAUUGUGAAUUGAU-AA-U
<i>S. araneus</i> (shrew)	AAAAU-----AAUAU-----AAU-AAUAAUUG-CAUGCUGC	UUUAAUUGUGAAUUGAU-AA-U
<i>E. europaeus</i> (hedgehog)	AAACU-----AAUAU-----AA-----AUUG-CAUGCUGC	UUUAAUUGUGAAUUGAU-AA-U
<i>C. l. familiaris</i> (dog)	AAAAAUAAUAAUAAUAAUGAUAAU-----AAU-AA---AUUG-CAUGCUGC	UUUAAUUGUGAAUCGAU-AA-U
<i>F. catus</i> (cat)	AAAAA-----AAUAU-----AAU-AA---AUUG-CAUGCUGC	UUUAAUUGUGAAUUGAU-AA-U
<i>E. f. caballus</i> (horse)	AA-----AAUAU-----AAU-AA---AUUG-CAUGCUGC	UUUAAUUGUGAAUUGAU-AA-U
<i>B. taurus</i> (cow)	AAAAU-----ACUACU-----AAU-AA---AUUG-CAUGCUGC	UUUAAUUGUGAAUUGAU-AA-C
<i>D. rerio</i> (zebrafish)	-----	-----
<i>L. africana</i> (elephant)	AAAAA-----UAAUAU-----AAU-AA---AUUG-CAUGCUGC	UUUAAUUGUGAAUUGAU-AA-U
<i>E. telfairi</i> (tenrec)	AAAA-----AUAAU-----AAU-AA---AUUG-CAUGCUC	UUUAAUUGGUGAAUUGAU-AA-U
<i>M. domestica</i> (opossum)	AAAAA-----UA-----AAU-AA---AUUG-CAUGCUGC	UUUAAUUGUGAAUUGAU-AA-U
<i>O. anatinus</i> (platypus)	AAAAA-----AAU-AA---AUUG-CAUGCUGC	UUCAAUUGUGAAUUGAUGAA-U
<i>A. carolinensis</i> (lizard)	UUAAA-----AA-----AAUAAA-----AUUG-CAUGCUGC	UUAAAUUGUGAAUUGAU-GA-U
<i>X. tropicalis</i> (frog)	UAAAA-----AC-----CAA-GA---AUUG-CAUGCUGC	UUCAGUUGUGAAUUGAC-AA-U

miR-15ab/16/195/322/497/1907 (*Mus musculus* BDNF 3'UTR nt pos 295-301)

miRs from broadly conserved miR families predicted to bind BDNF 3'UTR

M. musculus BDNF 3'UTR (2891 nt)	
miR-10ab miR-30abcde/384-5p miR-1a/206 miR-155 miR-190/190ab miR-210 miR-1a/206 miR-182 miR-191 miR-1a/206 miR-15ab/16/195/322/497/1907 miR-103/107	
<i>M. musculus</i> (mouse)	AAAA-----AUAUU-----AAU-AA--AUUG-CAUGCUGCUUUAAUUGUGAAUUGAU-AA-UA
<i>H. sapiens</i> (human)	AAAA-----AU-----AAU-AA--AUUG-CAUGCUGCUUUAAUUGUGAAUUGAU-AA-UA
<i>P. troglodytes</i> (chimpanzee)	AAAA-----AU-----AAU-AA--AUUG-CAUGCUGCUUUAAUUGUGAAUUGAU-AA-UA
<i>M. mulatta</i> (rhesus macaque)	AAAA-----AU-----AAU-AA--AUUG-CAUGCUGCUUUAAUUGUGAAUUGAU-AA-UA
<i>O. garnettii</i> (bushbaby)	AAAA-----AAAAUAAGAAU-AA--AUUGCAUGCUGCUUUAAUUGUGA-UUGAU-A--UA
<i>T. belangeri</i> (treeshrew)	AAUA-----AU-----AAU-AA--AUUG-CAUGCUGCUUUAAUUGUGAAUUGAU-AAUA
<i>R. norvegicus</i> (rat)	AAAA-----U-----AAU-AA--AUUG-CAUGCUGCUUUAAUUGUGAAUUGAU-AA-UA
<i>C. porcellus</i> (guinea pig)	AAAA-----UUACU-----AAU-AA--AUUG-CAUGCUGCUUUAAUUGUGAAUUGAU-AA-UA
<i>O. cuniculus</i> (rabbit)	AAAA-----AU-----AAU-AA--AUUG-CAUGCUGCUUUAAUUGUGAAUUGAU-AA-UA
<i>S. araneus</i> (shrew)	AAAU-----AAUAAU-----AAU-AAUAAAUUG-CAUGCUGCUUUAAUUGUGAAUUGAU-AA-UA
<i>E. europaeus</i> (hedgehog)	AACU-----AAUAAU-----AA-----AUUG-CAUGCUGCUUUAAUUGUGAAUUGAU-AA-UA
<i>C. l. familiaris</i> (dog)	AAAAUAAUAAUAAUAAUGAUAAU-----AAU-AA--AUUG-CAUGCUGCUUUAAUUGUGAAUCGAU-AA-UA
<i>F. catus</i> (cat)	AAAA-----AAUAAU-----AAU-AA--AUUG-CAUGCUGCUUUAAUUGUGAAUUGAU-AA-UA
<i>E. f. caballus</i> (horse)	A-----AAUAAU-----AAU-AA--AUUG-CAUGCUGCUUUAAUUGUGAAUUGAU-AA-UA
<i>B. taurus</i> (cow)	AAAU-----ACUACU-----AAU-AA--AUUG-CAUGCUGCUUUAAUUGUGAAUUGAU-AA-CA
<i>D. rerio</i> (zebrafish)	-----
<i>L. africana</i> (elephant)	AAAA-----UAAUAAU-----AAU-AA--AUUG-CAUGCUGCUUUAAUUGUGAAUUGAU-AA-UA
<i>E. telfairi</i> (tenrec)	AAA-----AUAUU-----AAU-AA--AUUG-CAUGCUGCUUUAAUUGUGAAUUGAU-AA-UA
<i>M. domestica</i> (opossum)	AAAA-----UA-----AAU-AA--AUUG-CAUGCUGCUUUAAUUGUGAAUUGAU-AA-UA
<i>O. anatinus</i> (platypus)	AAAA-----AAU-AA--AUUG-CAUGCUGCUUCAAUUGUGAAUUGAUGAA-UA
<i>A. carolinensis</i> (lizard)	UAAA-----AA-----AAUAAA--AUUG-CAUGCUGCUUAAAUUGUGAAUUGAU-GA-UA
<i>X. tropicalis</i> (frog)	AAAA-----AC-----CAA-GA--AUUG-CAUGCUGCUUCAGUUGUGAAUUGAC-AA-UA

miR-1a/206, site 2 (*Mus musculus* BDNF 3'UTR nt pos 407-413)

miRs from broadly conserved miR families predicted to bind BDNF 3'UTR

M. musculus BDNF 3'UTR (2891 nt)	
miR-10ab miR-30abcde/384-5p miR-1a/206 miR-155 miR-190/190ab miR-210 miR-182 miR-191 miR-1a/206 miR-15ab/16/195/322/497/1907 miR-103/107	
<i>M. musculus</i> (mouse)	AAAAAAAAAACAAAAACAAAACAAAAUUGGAACCAAAACAUUCG GUUACAUUUUAGACACU-AA
<i>H. sapiens</i> (human)	CAACAA-----AAAUUUGAACCAAAACAUUCG GUUACAUUUUAGACAGU-AA
<i>P. troglodytes</i> (chimpanzee)	CAACAA-----AAAUUUGAACCAAAACAUUCG GUUACAUUUUAGACAGU-AA
<i>M. mulatta</i> (rhesus macaque)	CAACAA-----AAAUUUGAACCAAAACAUUCG GUUACAUUUUAGACAGU-AA
<i>O. garnettii</i> (bushbaby)	CAACAA-----AAAUUUGAACCAAAACAUUCG GUUACAUUUUAGACAGU-AA
<i>T. belangeri</i> (treeshrew)	CAACAA-----AAAUUUGAACCAAAACAUUCG GUUACAUUUUAGACAGU-AA
<i>R. norvegicus</i> (rat)	AAAAAG-----CAAAAACAAAAUUUGAACCAAAACAUUCG GUUACAUUUUAGACAGU-AA
<i>C. porcellus</i> (guinea pig)	CACAAA-----AAUUUGAACCAAAACAUUCG GUUACAUUUUAGACAGU-AA
<i>O. cuniculus</i> (rabbit)	---CAA-----AAAUUUGAACCAAAACAUUCG GUUACAUUUUAGACAGU-AA
<i>S. araneus</i> (shrew)	CAACAA-----AAAUUUGAACCAAAACAUUCG GUUACAUUUUAGACAGU-AA
<i>E. europaeus</i> (hedgehog)	CAACAA-----AAAUUUGAACCAAAACAUUCG GUUACAUUUUAGACAGU-AA
<i>C. l. familiaris</i> (dog)	CGACAA-----AAAUUUGAACCAAAACAUUCG GUUACAUUUUAGACAGU-AA
<i>F. catus</i> (cat)	CAACAA-----AAAUUUGAACCAAAACAUUCG GUUACAUUUUAGACAGG-AA
<i>E. f. caballus</i> (horse)	CAACAA-----AAAUUUGAACCAAAACAUUCG GUUACAUUUUAGACAGU-AA
<i>B. taurus</i> (cow)	UAACAA-----AAAUUUGAACCAAAACAUUCG GUUACAUUUUAGACAGU-AA
<i>D. rerio</i> (zebrafish)	-----
<i>L. africana</i> (elephant)	CAACAA-----AAAUUUGAACCAAAACAUC CCG GUUACAUUUUAGACAGU-AA
<i>E. telfairi</i> (tenrec)	CAACAA-----AAAUUUGAACCAAAACAUUCG GUUACAUUUUAGACAGU-AA
<i>M. domestica</i> (opossum)	CACAAAC-----AAAUUUGAACCAAAACAUUCG GUUACAUUUUAGACAGUAAA
<i>O. anatinus</i> (platypus)	AA-----AAAUUUGAACCAAAACAUUCG GUUACAUUUUAGACAGU-AA
<i>A. carolinensis</i> (lizard)	-A-----AAAUUUGAACCAAAACAUUCG GUUACAUUUUAGACAGU-AA
<i>X. tropicalis</i> (frog)	-A-----CAUUUGAACCAAAACAUUCG GUUACAUUUCACACAGU-A-

miR-191 (*Mus musculus* BDNF 3'UTR nt pos 410-416)

miRs from broadly conserved miR families predicted to bind BDNF 3'UTR

M. musculus BDNF 3'UTR (2891 nt)	
miR-10ab miR-30abcde/384-5p miR-1a/206 miR-155 miR-365 miR-190/190ab miR-210 miR-1a/206 miR-182 miR-191 miR-1a/206 miR-15ab/16/195/322/497/1907 miR-103/107	
<i>M. musculus</i> (mouse)	AAAAAAACAAAAACAAAAACAAAUUGAACC AAAACA UUC CGUUUACA UUUUAGACAGU -AAGUA
<i>H. sapiens</i> (human)	CAA-----AAAUUUGAACCAAAAACA UUC CGUUUACA UUUUAGACAGU -AAGUA
<i>P. troglodytes</i> (chimpanzee)	CAA-----AAAUUUGAACCAAAAACA UUC CGUUUACA UUUUAGACAGU -AAGUA
<i>M. mulatta</i> (rhesus macaque)	CAA-----AAAUUUGAACCAAAAACA UUC CGUUUACA UUUUAGACAGU -AAGUA
<i>O. garnettii</i> (bushbaby)	CAA-----AAAUUUGAACCAAAAACA UUC CGUUUACA UUUUAGACAGU -AAGUA
<i>T. belangeri</i> (treeshrew)	CAA-----AAAUUUGAACCAAAAACA UUC CGUUUACA UUUUAGACAGU -AAGUA
<i>R. norvegicus</i> (rat)	AAG-----CAAAAACAAAUUUUGAACCAAAAACA UUC CGUUUACA UUUUAGACAGU -AAGUA
<i>C. porcellus</i> (guinea pig)	AAA-----AAUUUGAACCAAAAACA UUC CGUUUACA UUUUAGACAGU -AAGUA
<i>O. cuniculus</i> (rabbit)	CAA-----AAAUUUGAACCAAAAACA UUC CGUUUACA UUUUAGACAGU -AAGUA
<i>S. araneus</i> (shrew)	CAA-----AAAUUUGAACCAAAAACA UUC CGUUUACA UUUUAGACAGU -AAGUA
<i>E. europaeus</i> (hedgehog)	CAA-----AAAUUUGAACCAAAAACA UUC CGUUUACA UUUUAGACAGU -AAGUA
<i>C. l. familiaris</i> (dog)	CAA-----AAAUUUGAACCAAAAACA UUC CGUUUACA UUUUAGACAGU -AAGUA
<i>F. catus</i> (cat)	CAA-----AAAUUUGAACCAAAAACA UUC CGUUUACA UUUUAGACAGG -AAGUA
<i>E. f. caballus</i> (horse)	CAA-----AAAUUUGAACCAAAAACA UUC CGUUUACA UUUUAGACAGU -AAGUA
<i>B. taurus</i> (cow)	CAA-----AAAUUUGAACCAAAAACA UUC CGUUUACA UUUUAGACAGU -AAGUA
<i>D. rerio</i> (zebrafish)	-----
<i>L. africana</i> (elephant)	CAA-----AAAUUUGAACCAAAAACA UUC CGUUUACA UUUUAGACAGU -AAGUA
<i>E. telfairi</i> (tenrec)	CAA-----AAAUUUGAACCAAAAACA UUC CGUUUACA UUUUAGACAGU -AAGUA
<i>M. domestica</i> (opossum)	AAC-----AAAUUUGAACCAAAAACA UUC CGUUUACA UUUUAGACAGU -AAGUA
<i>O. anatinus</i> (platypus)	-----AAAUUUGAACCAAAAACA UUC CGUUUACA UUUUAGACAGU -AAGUA
<i>A. carolinensis</i> (lizard)	-----AAAUUUGAACCAAAAACA UUC CGUUUACA UUUUAGACAGU -AAGUA
<i>X. tropicalis</i> (frog)	-----CAAUUUGAACCAAAAACA UUC CGUUUACA UUUUAGACAGU -A-----

miR-30abcde/384-5p (*Mus musculus* BDNF 3'UTR nt pos 414-420)

miRs from broadly conserved miR families predicted to bind BDNF 3'UTR

M. musculus BDNF 3'UTR (2891 nt)		
miR-10ab	miR-30abcde/384-5p	miR-1a/206
miR-190/190ab		miR-155
miR-210		miR-365
miR-182		
miR-1a/206		
miR-15ab/16/195/322/497/1907		
miR-103/107		
<i>M. musculus</i> (mouse)	AAUUUGAACCAAAACAUCCGUUUACAUUUUAGACAGU-AAGUAUCUU	
<i>H. sapiens</i> (human)	AAUUUGAACCAAAACAUCCGUUUACAUUUUAGACAGU-AAGUAUCUU	
<i>P. troglodytes</i> (chimpanzee)	AAUUUGAACCAAAACAUCCGUUUACAUUUUAGACAGU-AAGUAUCUU	
<i>M. mulatta</i> (rhesus macaque)	AAUUUGAACCAAAACAUCCGUUUACAUUUUAGACAGU-AAGUAUCUU	
<i>O. garnettii</i> (bushbaby)	AAUUUGAACCCAAACAUCCGUUUACAUUUUAGACAGU-AAGAUCUC	
<i>T. belangeri</i> (treeshrew)	AAUUUGAACCAAAACAUCCGUUUACAUUUUAGACAGU-ACGUAUCUU	
<i>R. norvegicus</i> (rat)	AAUUUGAACCAAAACAUCCGUUUACAUUUUAGACAGU-AAGUAUCUU	
<i>C. porcellus</i> (guinea pig)	AAUUUGAACCAAAACAUCCGUUUACAUUUUAGACAGU-AAGUAUCUU	
<i>O. cuniculus</i> (rabbit)	AAUUUGAACCAAAACAUCCGUUUACAUUUUAGACAGU-AAGUAUCUC	
<i>S. araneus</i> (shrew)	AAUUUGAACCAAAACAUCCGUUUACAUUUUAGACAGU-AAGUAUCUU	
<i>E. europaeus</i> (hedgehog)	AAUUUGAACCAAAACAUCCGUUUACAUUUUAGACAGU-AAGUAUCUU	
<i>C. l. familiaris</i> (dog)	AAUUUGAACCAAAACAUCCGUUUACAUUUUAGACAGU-AAGUAUCUU	
<i>F. catus</i> (cat)	AAUUUGAACCAAAACAUCCGUUUACAUUUUAGACAGG-AAGUAUCUU	
<i>E. f. caballus</i> (horse)	AAUUUGAACCAAAACAUCCGUUUACAUUUUAGACAGU-AAGUAUCUU	
<i>B. taurus</i> (cow)	AAUUUGAACCAAAACAUCCGUUUACAUUUUAGACAGU-AAGUAUCUU	
<i>D. rerio</i> (zebrafish)	-----	
<i>L. africana</i> (elephant)	AAUUUGAACCAAAACAUCCGUUUACAUUUUAGACAGU-AAGUAUCUU	
<i>E. telfairi</i> (tenrec)	AAUUUGAACCAAAACAUCCGUUUACAUUUUAGACAGU-AAGUACCU	
<i>M. domestica</i> (opossum)	AAUUUGAACCCAAACAUCCGUUUACAUUUUAGACAGU-AAAGUAUCUU	
<i>O. anatinus</i> (platypus)	AAUUUGAACC-AAACAUCCGUUUACAUUUUAGACAGU-AAGUAUCUU	
<i>A. carolinensis</i> (lizard)	AAUUUGAACCAAAACAUCCGUUUACAUUUUAGACAGU-AAGUAUCUU	
<i>X. tropicalis</i> (frog)	AAUUUGAACCAAAACAUCCGUUUACAUUUACACAGU-A-----UC	

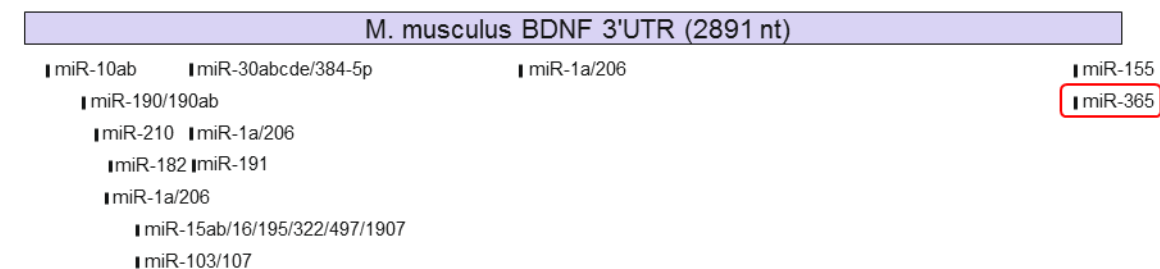
miR-1a/206, site 3 (*Mus musculus* BDNF 3'UTR nt pos 1306-1312)

miRs from broadly conserved miR families predicted to bind BDNF 3'UTR

M. musculus BDNF 3'UTR (2891 nt)	
miR-10ab miR-30abcde/384-5p miR-1a/206 miR-155 miR-190/190ab miR-210 miR-1a/206 miR-182 miR-191 miR-1a/206 miR-15ab/16/195/322/497/1907 miR-103/107	
M. musculus (mouse) H. sapiens (human) P. troglodytes (chimpanzee) M. mulatta (rhesus macaque) O. garnettii (bushbaby) T. belangeri (treeshrew) R. norvegicus (rat) C. porcellus (guinea pig) O. cuniculus (rabbit) S. araneus (shrew) E. europaeus (hedgehog) C. l. familiaris (dog) F. catus (cat) E. f. caballus (horse) B. taurus (cow) D. rerio (zebrafish) L. africana (elephant) E. telfairi (tenrec) M. domestica (opossum) O. anatinus (platypus) A. carolinensis (lizard) X. tropicalis (frog)	GGUGGGGA-AUGGUA-CUUGAGACAUUCCU-AAAGGAA-GGC-----UCG--GAAGCA GGUGGGGC-AUGGUA-UUUGAGACAUUCCA-AAACGAA-GGCC-----UCU--GAAGGA GGUGGGGC-AUGGUA-UUUGAGACAUUCCA-AAACGAA-AGCC-----UCU--GAAGGA GGUGGGGC-AUGGUA-UUUGAGACAUUCCA-AAAGGAA-GGCC-----UCU--GAAGGA GGUGGGGA--UGGUA-CUUG-GACAUUCCA-AAAAAG-----C-----UCU--GAAGGA GGUGGGGA-AUAGUA-CUUGAGACAUUCCA-CAAGGAA-AGCC-----UCU--GAAGGA GGUGGGGA-AUGGUA-CUUGAGACAUUCCU-AAAGGAA-GGC-----UCG--GAAGCA AGGGGGCG-AGGGUA-CUCGAGAUCCUCCU-ACAGGA-----GCA GGUGGGGA-AUGGUA-UUUGAGACAUUCCA-AAAGGAA-GGUC-----UCU--UCAGGG GGUGGGGA-AUGAUA-CUUGAGACAUUCCA-AAAGGGA-GGCC-----UCU--GAAGGG GGUUUGAA-CUCAUAGCUUGAGACAUUCCA-AGAGGAC-GGCC-----UCU--GGAGUG GGUGGGCA-ACGGUA-C-----AUUCCG-GAAGGGA-GGCC-----UCU--GAGGGA GGUGGGGA-AUGGUA-CUUGAGACAUUCCAAGUAGGGA-GACC-----UUUUGAAGGAC GCUGGCCA-GUGGUA-CUUGAGACAUUCCA-AAAGGGA-GGCC-----UCU--GAAGGA GGUGGGGA-AGGGUA-CUUGAGACAUUCCA-GAAGGGA-GACC-----UCU--AAAGGA GGUAGGGA-AUGGUA-CUUGAGACAUUCCA-AAAGGGA-GGCC-----UCU--GAAGGA GGUAGGGA-AGGGGA-CGUGAGACAUUCCA-AAAGGGA-GGCC-----UCU--AAAGGA GGUGGAGAUGUGGCA-UUUGAGACAUUCCAG-AAAGGAGCAGGA-----CCU--GAAGAA --GGGCAU-GUGGUA-UUUGAGAAAUUCCAG-AAAGAAA-UUCUGGGUAGAUGG--GAAGGG ----- -----

miR-365 (*Mus musculus* BDNF 3'UTR nt pos 2755-2761)

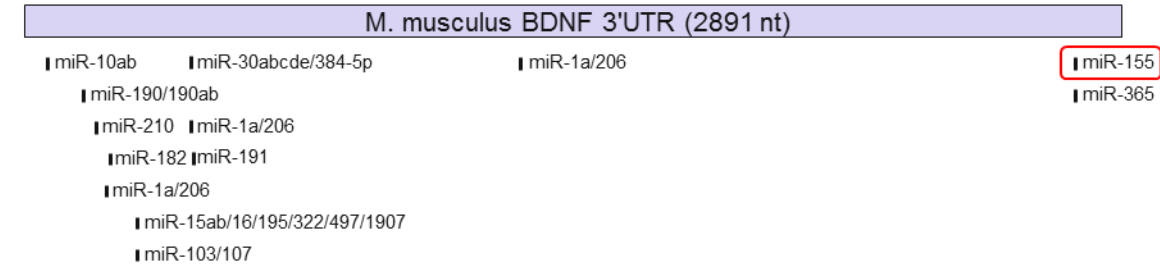
miRs from broadly conserved miR families predicted to bind BDNF 3'UTR



<i>M. musculus</i> (mouse)	UAUGUUAUUGAA-AAAA--UUGGCAUUAAAACUUAACCAUCAGAAAG
<i>H. sapiens</i> (human)	UAUGUUAUUGAA-AAAAA--UUGGCAUUAAAACUUAACCGCAUCAGAAAG
<i>P. troglodytes</i> (chimpanzee)	UAUGUUAUUGAA-AAAAA--UUGGCAUUAAAACUUAACCGCAUCAGAAAG
<i>M. mulatta</i> (rhesus macaque)	UAUGUUAUUGAA-AAAAA--UUGGCAUUAAAACUUAACCGCAUCAGAAAG
<i>O. garnettii</i> (bushbaby)	UAUGUUAUUGAA-AAAAA--UUGGCAUUAAAACUUAACCGCAUCAGAAAG
<i>T. belangeri</i> (treeshrew)	UAUGUA--UGAA-AAAA--UUGGCAUUAAA-CUUAACCGCAUCAGAAAG
<i>R. norvegicus</i> (rat)	UAUGUUAUUGAA-AAAAA--UUGGCAUUAAAACUUAACCAUCAGAAAG
<i>C. porcellus</i> (guinea pig)	UAUGUUAUUGAA-AAAA--UUGGCAUUAAAAUUAACCGCAUCAGAAAG
<i>O. cuniculus</i> (rabbit)	UAUGUUAUUGAA-AAAAA--UUGGCAUUAAAACUUAACCGCAUCAGAAAG
<i>S. araneus</i> (shrew)	UAUGUUAUUGAA-AAAAA--UUGGCAUUAAAACUUAACCGCAUCAGAAAG
<i>E. europaeus</i> (hedgehog)	UAUGUUAUUGAA-AAAAA--UUGGCAUUAAAACUUAACCUCAUCAGAAAG
<i>C. l. familiaris</i> (dog)	UAUGUUAUUGAA-AAAAA--UUGGCAUUAAAACUUAACCGCAUCAGAAAG
<i>F. catus</i> (cat)	UAUGUUAUUGAA-AAAAA--UUGGCAUUAAAACUUAACCGCAUCAGAAAG
<i>E. f. caballus</i> (horse)	UAUGUUAUUGAA-AAAA--UUGGCAUUAAAACUUAACCGCAUCAGAAAG
<i>B. taurus</i> (cow)	UAUGUUCUUGAA-AAAAA--UUGGCAUUAAAACUUAUUCGCAUCAGAAAG
<i>D. rerio</i> (zebrafish)	UAUGUUAUUGAA-AAAAA--UUGGCAUUAAAACUUAUUCGCAUCAGAAA
<i>L. africana</i> (elephant)	UAUGUUAUUGAA-AAAAA--UUGGCAUUAAAACUUAACCGCAUCAGAAAG
<i>E. telfairi</i> (tenrec)	UAUGUUCUUGAAAAA--UUGGCAUUAAAACUUAACCGCAUCAGAAAG
<i>M. domestica</i> (opossum)	UCUGUUAUUGAG-AAAA--UUGGCAUUAAAACUUAUUAAGCAUCAGAAU
<i>O. anatinus</i> (platypus)	UAUGUUAUUGAA-AAA--UUGGCAUUAAAACUUAAGCAUUGAAU
<i>A. carolinensis</i> (lizard)	A---UUUUUGGA-AGAAU--CUGGCAUUAAAUCUUAAGCAUCUGGUU
<i>X. tropicalis</i> (frog)	UAUGUUAUUGAA-AGAGA--UUGGCAUUUCAAUUGGAAGCAUUGAAA

miR-155 (*Mus musculus* BDNF 3'UTR nt pos 2756-2762)

miRs from broadly conserved miR families predicted to bind BDNF 3'UTR



<i>M. musculus</i> (mouse)	AUGUUAUUGAA-AAAA---UUGGCAUUAAAACUUAACCAUCAGAAAGC
<i>H. sapiens</i> (human)	AUGUUAUUGAA-AAAAA---UUGGCAUUAAAACUUAACCGCAUCAGAAAGC
<i>P. troglodytes</i> (chimpanzee)	AUGUUAUUGAA-AAAAA---UUGGCAUUAAAACUUAACCGCAUCAGAAAGC
<i>M. mulatta</i> (rhesus macaque)	AUGUUAUUGAA-AAAAA---UUGGCAUUAAAACUUAACCGCAUCAGAAAGC
<i>O. garnettii</i> (bushbaby)	AUGUUAUUGAA-AAAAA---UUGGCAUUAAAACUUAACCGCAUCAGAAAGC
<i>T. belangeri</i> (treeshrew)	AUGUA--UGAA-AAAA---UUGGCAUUAAA-CUUAACCGCAUCAGAAAGC
<i>R. norvegicus</i> (rat)	AUGUUAUUGAA-AAAAA---UUGGCAUUAAAACUUAACCAUCAGAAAGC
<i>C. porcellus</i> (guinea pig)	AUGUUAUUGAA-AAAAA---UUGGCAUUAAAACUUAACCGCAUCAGAAAGC
<i>O. cuniculus</i> (rabbit)	AUGUUAUUGAA-AAAAA---UUGGCAUUAAAACUUAACCGCAUCAGAAAGC
<i>S. araneus</i> (shrew)	AUGUUAUUGAA-AAAAA---UUGGCAUUAAAACUUAACCGCAUCAGAAAGC
<i>E. europaeus</i> (hedgehog)	AUGUUAUUGAA-AAAAA---UUGGCAUUAAAACUUAACCUCAUCAGAAAGC
<i>C. l. familiaris</i> (dog)	AUGUUAUUGAA-AAAAA---UUGGCAUUAAAACUUAACCGCAUCAGAAAGC
<i>F. catus</i> (cat)	AUGUUAUUGAA-AAAAA---UUGGCAUUAAAACUUAACCGCAUCAGAAAGC
<i>E. f. caballus</i> (horse)	AUGUUAUUGAA-AAAAA---UUGGCAUUAAAACUUAACCGCAUCAGAAAGC
<i>B. taurus</i> (cow)	AUGUUAUUGAA-AAAAA---UUGGCAUUAAAACUUAUUCGCAUCAGAAAGC
<i>D. rerio</i> (zebrafish)	AUGUUAUUGAA-AAAAA---UUGGCAUUAAAACUUAUUCGCAUCAGAAAGC
<i>L. africana</i> (elephant)	AUGUUAUUGAA-AAAAA---UUGGCAUUAAAACUUAACCGCAUCAGAAAGC
<i>E. telfairi</i> (tenrec)	AUGUUAUUGAA-AAAAA---UUGGCAUUAAAACUUAACCGCAUCAGAAAGC
<i>M. domestica</i> (opossum)	CUGUUAUUGAG-AAAA---UUGGCAUUAAAACUUAUUCGCAUCAGAAAGC
<i>O. anatinus</i> (platypus)	AUGUUAUUGAA-AAA---UUGGCAUUAAAACUUAUUCGCAUCAGAAAGC
<i>A. carolinensis</i> (lizard)	---UUUUUGGA-AGAAU---CUGGCAUUAAAACUUAUUCGCAUCAGAAAGC
<i>X. tropicalis</i> (frog)	AUGUUAUUGAA-AGAGA---UUGGCAUUUCAAUUGGAAGCAUUUGAAAC