

Buffalo	-----GAGAGAGA-----CTAAGACGGATAACGCGTCATCTCGCCTTCCCAAATTTT	47
Cow	-----GAGAGAGA-----CTAAGACGGATAACGCGTCATCTCGCCTTCCCAAATTTT	47
Whale	GTGCTCGGGGAGAGAGA----CTAAGACGGATAACGCGTCATCTCGCCTTCCCAAATTTT	56
Dolphin	GTGCTCGGGGAGAGAGA----CTAAGACGGATAACGCGTCATCTCGCCTTCCCAAATTTT	56
Sheep	-----GAGAGAGA-----CTAAGACGGATAACGCGTCATCTCGCCTTCCCAAATTTT	
Horse	GTGCTCCAGGAGAGAGA----CTAAGACGGATAACGCGTCATCTCGCCTTCCCAAATTTT	56
Cat	GTGCTCGGGGAGAGAGA----CTAAGACGGATAACGCGTCATCTCGCCTTCCCAAATTTT	56
Walrus	GTGCTCGGGGAGAGAGA----CTAAGACGGATAACGCGTCATCTCGCCTTCCCAAATTTT	56
Panda	-----GAGAGAGA-----CTAAGACGGATAACGCGTCATCTCGCCTTCCCAAATTTT	
Shrew	--GCTCAGGGAGAGAGA----CTAAGACGGATAACGCGTCATCTCGCCTTCCCAAATTTT	54
Dog	-----GA-----CTAAGACGGATAACGCGTCATCTCGCCTTCCCAAATTTT	41
Pig	-----GAGAGAGA-----CTAAGACGGATAACGCGTCATCTCGCCTTCCCAAATTTT	
Chimpanzee	GTGCTCAGAGAGAGAGAGA--CTAAGACGGATAACGCGTCATCTCGCCTTCCCAAATTTT	58
Human	GTGCTCAGAGAGAGAGAGA--CTAAGACGGATAACGCGTCATCTCGCCTTCCCAAATTTT	58
Orangutan	GTGCTCAGAGAGAGAGAGAGACTAAGACGGATAACGCGTCATCTCGCCTTCCCAAATTTT	60
Baboon	GTGCTCAGGGAGAGAGA----CTAAGACGGATAACGCGTCATCTCGCCTTCCCAAATTTT	56
Marmoset	GTGCTCGGGGAGAGAGA----CTAAGACGGATAACGCGTCATCTCGCCTTCCCAAATTTT	56
Buffalo	ACCCCC-TCGCTAGACCTGGTCCAAAACCTCCATCTGGAGCCGGCAG---AAGAGAACGA	103
Cow	ACCCCC-TCGCTAGACCTGGTCCAAAACCTCCATCTGGAGCCGGCAG---AAGAGAACGA	103
Whale	CCCCCC-TCGCTAGATCAGGTCCAAAACCTCCATCTGGAGCCGGCAGGAGAAGAGAACGA	115
Dolphin	CCCCCC-TCGCTAGATCAGGTCCAAAACCTCCATCTGGAGCCGGCAGGAGAAGAGAACGA	115
Sheep	-----A	1
Horse	CCCCCC-TCGCTAGACTGGGTCCAAAACCTCCATCTGGAGCCGGCAGGAGAAGAGAACGA	115
Cat	CCCCCCTCGCTAGATCGGGTCCAAAACCTCCATCTGGAGCCGGCAGGAGAAGAGAACGA	116
Walrus	CCCCCC-TCGCTAGATCGTGTCCAAAACCTCCATCTGGAGCCGTCAGGAGAAGAGAACGA	115
Panda	-----A	1
Shrew	CCCCCC-TCGCTAGAACGGGTCCAAAACCTCCATCTGGAGCCGGCAGAAGAAGAGAACGA	113
Dog	TCCCCCCTCGCCAGATCGGGTCCAAAACCTCCATCTGGAGCCGGCAGGAGAGGAGAACGA	101
Pig	-----A	1
Chimpanzee	CCCCCC-TCGCTAGACCGGTCCAAAACCTCCATCCGGAGCCGGCAGGAGAGGAGAACGA	117
Human	CCCCCC-TCGCTAGACCGGTCCAAAACCTCCATCCGGAGCCGGCAGGAGAGGAGAACGA	117
Orangutan	CCCCCC-TCGCTAGACCGGTCCAAAACCTCCATCCGGAGCCGGCAGGAGAGGAGAACGA	119
Baboon	CCCCCC-TCGCTAGACCGGTCCAAAACCTCCATCCGGAGCCGGCAGGAGAGGAGAACGA	115
Marmoset	CCCCCC-TCGCTAGACCGGTCCAAAACCTCCATCCGGAGCCGGCAGGAGAGGAGAACGA	115
Buffalo	TGTTTAACTCGGTCAACCTGGGCAACTTCTGCTCGCCGTCGCGCAAGGAGAGGGGGCGCCG	163
Cow	TGTTTAACTCGGTCAACCTGGGCAACTTCTGCTCGCCGTCGCGCAAGGAGAGGGGGCGCCG	163
Whale	TGTTTAACTCGGTCAACCTGGGCAACTTCTGCTCGCCGTCGCGCAAGGAGAGGGGGCGCTG	175
Dolphin	TGTTTAACTCGGTCAACCTGGGCAACTTCTGCTCGCCGTCGCGCAAGGAGAGGGGGCGCTG	175
Sheep	TGTTTAACTCGGTCAACCTGGGCAACTTCTGCTCGCCGTCGCGCAAGGAGAGGGGGCGCCG	61
Horse	TGTTTAACTCGGTCAACCTGGGCAACTTCTGCTCGCCGTCGCGCAAGGAGAGGGGGCGCTG	175
Cat	TGTTTAACTCGGTCAACCTGGGCAACTTCTGCTCGCCGTCGCGCAAGGAGAGGGGGCGCTG	176
Walrus	TGTTTAACTCGGTCAACCTGGGCAACTTCTGCTCGCCGTCGCGCAAGGAGAGGGGGCGCTG	175
Panda	TGTTTAACTCGGTCAACCTGGGCAACTTCTGCTCGCCGTCGCGCAAGGAGAGGGGGCGCTG	61
Shrew	TGTTTAACTCGGTCAACCTGGGCAACTTCTGCTCGCCGTCGCGCAAGGAGAGGGGGCGCTG	173
Dog	TGTTTAACTCGGTCAACCTGGGCAACTTCTGCTCGCCGTCGCGCAAGGAGAGGGGGCGCTG	161
Pig	TGTTTAACTCAGTCAACCTGGGCAACTTCTGCTCGCCGTCGCGCAAGGAGAGGGGGCGCTG	61
Chimpanzee	TGTTTAACTCGGTCAACCTGGGCAACTTCTGCTCGCCGTCGCGCAAGGAGAGGGGGCGCAG	177
Human	TGTTTAACTCGGTCAACCTGGGCAACTTCTGCTCCTCGTCGCGCAAGGAGAGGGGGCGCAG	177
Orangutan	TGTTTAACTCGGTCAACCTGGGCAACTTCTGCTCGCCGTCGCGCAAGGAGAGGGGGCGCAG	179
Baboon	TGTTTAACTCGGTCAACCTGGGCAACTTCTGCTCGCCGTCGCGCAAGGAGAGGGGGCGCAG	175
Marmoset	TGTTTAACTCGGTCAACCTGGGCAACTTCTGCTCGCCGTCGCGCAAGGAGAGGGGGCGCTG	175
	*****	*

SUPPLEMENTARY FIG. S4. Multiple sequence alignment of *B. bubalis Hoxc11* mRNA across the species. *In silico* analysis revealed more than 94% homology of *B. bubalis Hoxc11* mRNA with that of other species. Nucleotides identical in the species are indicated by an asterisk (*). The buffalo *Hoxc11* sequence is given in red. The positions of start and stop codons are highlighted in yellow.

Buffalo **ATTTGCGCGAGCGAGGGAGCTGCGCCTCCAACCTCTATCTGCCCAGTTGCACTTACTACG** 223
Cow **ATTTGCGCGAGCGAGGGAGCTGCGCCTCCAACCTCTATCTGCCCAGTTGCACTTACTACG** 223
Whale **ATTTGCGCGAGCGAGGGAGCTGCGCCTCCAACCTCTATCTGCCCAGTTGCACTTACTACG** 235
Dolphin **ATTTGCGCGAGCGAGGGAGCTGCGCCTCCAACCTCTATCTGCCCAGTTGCACTTACTACG** 235
Sheep **ATTTGCGCGAGCGAGGGAGCTGCGCCTCCAACCTCTATCTGCCCAGTTGCACTTACTACG** 121
Horse **ATTTGCGCGAGCGAGGCAGCTGCGCCTCCAACCTCTATCTGCCCAGTTGCACTTACTACG** 235
Cat **ATTTGCGCGAGCGAGGGAGCTGCGCCTCCAACCTCTATCTGCCCAGTTGCACTTACTACG** 236
Walrus **ATTTGCGCGAGCGAGGGAGCTGCGCCTCCAACCTCTATCTGCCCAGTTGCACTTACTACG** 235
Panda **ACTTCGCGAGCGAGGGAGCTGCGCCTCCAACCTCTATCTGCCCAGTTGCACTTACTACG** 121
Shrew **ATTTGCGCGAGCGAGGGAGCTGCGCCTCCAACCTCTATCTGCCCAGTTGCACTTACTACG** 233
Dog **ATTTGCGCGAGCGAGGGAGCTGCGCCTCCAACCTCTATCTGCCCAGTTGCACTTACTACG** 221
Pig **ACTTCGCGAGCGAGGGAGCTGCGCCTCCAACCTCTATCTGCCCAGTTGCACTTACTACG** 121
Chimpanzee **ATTTGCGCGAGCGAGGGAGCTGCGCCTCCAACCTCTATCTGCCCAGTTGCACTTACTACA** 237
Human **ATTTGCGCGAGCGAGGGAGCTGCGCCTCCAACCTCTATCTGCCCAGTTGCACTTACTACA** 237
Orangutan **ATTTGCGCGAGCGAGGGAGCTGCGCCTCCAACCTCTATCTGCCCAGTTGCACTTACTACA** 239
Baboon **ATTTGCGCGAGCGAGGGAGCTGCGCCTCCAACCTCTATCTGCCCAGTTGCACTTACTACA** 235
Marmoset **ATTTGCGCGAGCGAGGGAGCTGCGCCTCCAACCTCTATCTGCCCAGTTGCACTTACTACA** 235
*** * * * ***

Buffalo **TGCCCCGAGTTCTCCACGGTCTCCTCCTTCCCTGCCCCAGGCCCCCTCTCGTCAGATCTCCT** 283
Cow **TGCCCCGAGTTCTCCACGGTCTCCTCCTTCCCTGCCCCAGGCCCCCTCTCGTCAGATCTCCT** 283
Whale **TGCCCCGAGTTCTCCACGGTCTCCTCCTTCCCTGCCCCAGGCCCCCTCTCGTCAGATCTCCT** 295
Dolphin **TGCCCCGAGTTCTCCACGGTCTCCTCCTTCCCTGCCCCAGGCCCCCTCTCGTCAGATCTCCT** 295
Sheep **TGCCCCGAGTTCTCCACGGTCTCCTCCTTCCCTGCCCCAGGCCCCCTCTCGTCAGATCTCCT** 181
Horse **TGCCCCGAGTTCTCCACGGTCTCCTCCTTCCCTGCCCCAGGCCCCCTCTCGTCAGATCTCCT** 295
Cat **TGCCCCGAGTTCTCCACGGTCTCCTCCTTCCCTGCCCCAGGCCCCCTCTCGACAGATCTCCT** 296
Walrus **TGCCCCGAGTTCTCCACGGTCTCCTCCTTCCCTGCCCCAGGCCCCCTCTCGTCAGATCTCCT** 295
Panda **TGCCCCGAGTTCTCCACGGTCTCCTCCTTCCCTGCCCCAGGCCCCCTCTCGTCAGATCTCCT** 181
Shrew **TGCCCCGAGTTCTCCACGGTCTCCTCCTTCCCTGCCCCAGGCCCCCTCTCGGCCAGATCTCCT** 293
Dog **TGCCCCGAGTTCTCCACGGTCTCCTCCTTCCCTGCCCCAGGCCCCCTCTCGCCAGCTCTCCT** 281
Pig **TGCCCCGAGTTCTCCACGGTCTCCTCCTTCCCTGCCCCAGGCCCCCTCTCGTCAGATCTCCT** 181
Chimpanzee **TGCCCCGAGTTCTCCACGGTCTCCTCCTTCCCTGCCCCAGGCCCCCTCTCGTCAGATCTCCT** 297
Human **TGCCCCGAGTTCTCCACGGTCTCCTCCTTCCCTGCCCCAGGCCCCCTCTCGTCAGATCTCCT** 297
Orangutan **TGCCCCGAGTTCTCCACGGTCTCCTCCTTCCCTGCCCCAGGCCCCCTCTCGTCAGATCTCCT** 299
Baboon **TGCCCCGAGTTCTCCACGGTCTCCTCCTTCCCTGCCCCAGGCCCCCTCTCGTCAGATCTCCT** 295
Marmoset **TGCCCCGAGTTCTCCACGGTCTCCTCCTTCCCTACCCCAGGCCCCCTCTCGTCAGATCTCCT** 295
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Buffalo **ATCCCTACCCGGCCCAAGTGCCCCGGTCCGAGAGGTCTCCTACGGCCTGGAGCCCTCCG** 343
Cow **ATCCCTACCCGGCCCAAGTGCCCCGGTCCGAGAGGTCTCCTACGGCCTGGAGCCCTCCG** 343
Whale **ATCCCTACCCGGCCCAAGTGCCCCGGTCCGGGAGGTCTCCTACGGCCTGGAGCCCTCCG** 355
Dolphin **ATCCCTACCCGGCCCAAGTGCCCCGGTCCGGGAGGTCTCCTACGGCCTGGAGCCCTCCG** 355
Sheep **ATCCCTACCCGGCCCAAGTGCCCCGGTCCGAGAGGTCTCCTACGGCCTGGAGCCCTCCG** 241
Horse **ATCCCTACTCGGCCCAAGTGCCCCGGTCCGGGAGGTCTCCTACGGCCTGGAGCCATCCG** 355
Cat **ACCCCTACTCAGCCCAAGTGCCCCGGTCCGGGAGGTCTCCTACGGCCTGGAGCCATCCG** 356
Walrus **ATCCCTACTCAGCCCAAGTGCCCCGGTCCGGGAGGTCTCCTACGGCCTGGAGCCATCCG** 355
Panda **ACCCCTACTCAGCCCAAGTGCCCCGGTCCGGGAGGTCTCCTACGGCCTGGAGCCCTCCG** 241
Shrew **ACCCCTACTCGGCCCAAGTGCCCCGGTCCGGGAGGTCTCCTACGGCCTGGAGCCCTCCG** 353
Dog **ACCCCTACTCGGCCCAAGTGCCCCGGTCCGGGAGGTCTCCTACGGCCTGGAGCCCTCCG** 341
Pig **ATCCCTACTCAGCCCAAGTGCCCCGGTCCGGGAGGTCTCCTACGGCCTGGAACCGTCCG** 241
Chimpanzee **ATCCCTACTCGGCCCAAGTGCCCCGGTCCGGGAGGTCTCCTACGGCCTGGAGCCATCCG** 357
Human **ATCCCTACTCGGCCCAAGTGCCCCGGTCCGGGAGGTCTCCTACGGCCTGGAGCCATCCG** 357
Orangutan **ATCCCTACTCGGCCCAAGTGCCCCGGTCCGGGAGGTCTCCTACGGCCTGGAGCCATCCG** 359
Baboon **ATCCCTACTCGGCCCAAGTGCCCCGGTCCGGGAGGTCTCCTACGGCCTGGAGCCAAACCG** 355
Marmoset **ATCCCTACTCGGCCCAAGTGCCCCGGTCCGGGAGGTCTCCTACGGCCTGGAGCCATCCG** 355
*** * * * ***

SUPPLEMENTARY FIG. S4. (Continued).

Buffalo	GCAAGTGGCACCCCGGAACAGCTACTCCTCCTGCTATGCGGCGGCCGACGAGCTCATGC	403
Cow	GCAAGTGGCACCCCGGAACAGCTACTCCTCCTGCTATGCGGCGGCCGACGAGCTCATGC	403
Whale	GCAAGTGGCACCCCGGAACAGCTACTCCTCCTGCTATGCGGCGGCCGACGAGCTCATGC	415
Dolphin	GCAAGTGGCACCCCGGAACAGCTACTCCTCCTGCTATGCGGCGGCCGACGAGCTCATGC	415
Sheep	GCAAGTGGCACCCCGGAACAGCTACTCCTCCTGCTATGCGGCGGCCGACGAGCTCATGC	301
Horse	GCAAGTGGCATCACCCGGAACAGCTACTCCTCCTGCTATGCGGCGGCCGACGAGCTTATGC	415
Cat	GCAAGTGGCACCCCGGAACAGCTACTCCTCCTGCTATGCGGCGGCCGACGAGCTCATGC	416
Walrus	GCAAGTGGCACCCCGGAACAGCTACTCCTCCTGCTATGCGGCGGCCGACGAGCTTATGC	415
Panda	GCAAGTGGCACCCCGGAACAGCTACTCCTCCTGCTATGCGGCGGCCGACGAGCTCATGC	301
Shrew	GCAAGTGGCACCCCGGAACAGCTACTCCTCCTGCTATGCGGCGGCCGACGAGCTCATGC	413
Dog	GCAAGTGGCACCCCGGAACAGCTACTCCTCCTGCTATGCGGCGGCCGACGAGCTCATGC	401
Pig	GCAAGTGGCACCCCGGAACAGCTACTCCTCCTGCTATGCGGCGGCCGACGAGCTCATGC	301
Chimpanzee	GCAAGTGGCACCATCGGAACAGCTACTCCTCCTGCTATGCGGCGGCCGACGAGCTTATGC	417
Human	GCAAGTGGCACCATCGGAACAGCTACTCCTCCTGCTATGCGGCGGCCGACGAGCTTATGC	417
Orangutan	GCAAGTGGCACCATCGGAACAGCTACTCCTCCTGCTATGCGGCGGCCGACGAGCTTATGC	419
Baboon	GCAAGTGGCACCATCGGAACAGCTACTCCTCCTGCTATGCTGCTGCCGACGAGCTTATGC	415
Marmoset	GCAAGTGGCACCATCGGAACAGCTACTCCTCCTGCTATGCGGCGGCCGACGAGCTCATGC	415
	***** * ***** ** ***** ** ***** **	
Buffalo	ACCGGGAGTGCCTGCCTCCTTCCACCGTCACCGAGATCCTCATGAAAAACGAAGGCTCCT	463
Cow	ACCGGGAGTGCCTGCCTCCTTCCACCGTCACCGAGATCCTCATGAAAAACGAAGGCTCCT	463
Whale	ACCGGGAGTGCCTGCCTCCTTCCACCGTCACCGAGATCCTCATGAAAAACGAAGGCTCCT	475
Dolphin	ACCGGGAGTGCCTGCCTCCTTCCACCGTCACCGAGATCCTCATGAAAAACGAAGGCTCCT	475
Sheep	ACCGGGAGTGCCTGCCTCCTTCCACCGTCACCGAGATCCTCATGAAAAACGAAGGCTCCT	361
Horse	ACCGGGAGTGCCTGCCTCCTTCCACCGTCACCGAGATCCTCATGAAAAACGAAGGCTCCT	475
Cat	ACCGGGAGTGCCTGCCTCCTTCCACCGTCACCGAGATCCTCATGAAAAACGAAGGCTCCT	476
Walrus	ACCGGGAGTGCCTGCCTCCTTCCACCGTCACCGAGATCCTCATGAAAAACGAAGGCTCCT	475
Panda	ACCGGGAGTGCCTGCCTCCTTCCACCGTCACCGAGATCCTCATGAAAAACGAAGGCTCCT	361
Shrew	ACCGCGAGTGCCTGCCGCGTCCACCGTCACCGAGATCCTCATGAAAAACGAAGGCTCCT	473
Dog	ACCGGGAGTGCCTGCCTCCTTCCACCGTCACCGAGATCCTCATGAAAAACGAAGGCTCCT	461
Pig	ACCGGGAGTGCCTGCCTCCTTCCACCGTCACCGAGATCCTCATGAAAAACGAAGGCTCCT	361
Chimpanzee	ACCGGGAGTGCCTGCCTCCTTCCACCGTCACCGAGATCCTCATGAAAAACGAAGGCTCCT	477
Human	ACCGGGAGTGCCTGCCTCCTTCCACCGTCACCGAGATCCTCATGAAAAACGAAGGCTCCT	477
Orangutan	ACCGGGAGTGCCTGCCTCCTTCCACCGTCACCGAGATCCTCATGAAAAACGAAGGCTCCT	479
Baboon	ACCGGGAGTGCCTGCCTCCTTCCACCGTCACCGAGATCCTCATGAAAAACGAAGGCTCCT	475
Marmoset	ACCGGGAGTGCCTGCCTCCTTCCACTGTCACCGAGATCCTCATGAAAAACGAAGGCTCCT	475
	**** ***** ** * ***** ***** *****	
Buffalo	ACGGCGGCCACCACCACCCAGCGCCCCGACGCGCCCCGCGGCTTCTACTCCTCAG	523
Cow	ACGGCGGCCACCACCACCCAGCGCCCCGACGCGCCCCGCGGCTTCTACTCCTCAG	523
Whale	ACGGCGGCCACCACCACCCAGCGCCCCGACGCGCCCCGCGGCTTCTACTCCTCAG	535
Dolphin	ACGGCGGCCACCACCACCCAGCGCCCCGACGCGCCCCGCGGCTTCTACTCCTCAG	535
Sheep	ACGGCGGCCACCACCACCCAGCGCCCCGACGCGCCCCGCGGCTTCTACTCCTCAG	421
Horse	ACGGCGGCCACCACCACCCAGCGCCCCGACGCGCCCCGCGGCTTCTACTCCTCAG	535
Cat	ACGGCGGCCACCACCACCCAGCGCCCCGACGCGCCCCGCGGCTTCTACTCCTCAG	536
Walrus	ACGGCGGCCACCACCACCCAGCGCCCCGACGCGCCCCGCGGCTTCTACTCCTCAG	535
Panda	ACGGCGGCCACCACCACCCAGCGCCCCGACGCGCCCCGCGGCTTCTACTCCTCAG	421
Shrew	ACGGCGGCCACCACCACCCAGCGCCCCGACGCGCCCCGCGGCTTCTATTCTCAG	533
Dog	ACGGCGGCCACCACCACCCAGCGCCCCGACGCGCCCCGCGGCTTCTACTCCTCAG	521
Pig	ACGGCGGCCACCACCACCCAGCGCCCCGACGCGCCCCGCGGCTTCTACTCCTCAG	421
Chimpanzee	ACGGCGGCCACCACCACCCAGCGCCCCGACGCGCCCCGCGGCTTCTACTCCTCAG	537
Human	ACGGCGGCCACCACCACCCAGCGCCCCGACGCGCCCCGCGGCTTCTACTCCTCAG	537
Orangutan	ACGGCGGCCACCACCATCCAGCGCCCCGACGCGCCCCGCGGCTTCTACTCCTCAG	539
Baboon	ACGGCAGCCACCACCACCCAGCGCCCCGACGCGCCCCGCGGCTTCTACTCCTCAG	535
Marmoset	ACGGCGGCCACCACCACCCAGTGCCTCAGCGCGCCCCGCGGCTTCTACTCCTCAG	535
	***** ***** ***** ***** * * ***** *****	

SUPPLEMENTARY FIG. S4. (Continued).

Buffalo TCAACAAGAACAGTGTCTGCCCCAAGCCTTTGACCGCTTCTTTGACAACGCCTACTGCG 583
 Cow TCAACAAGAACAGTGTCTGCCCCAAGCCTTTGACCGCTTCTTCGACAACGCCTACTGCG 583
 Whale TCAACAAGAACAGCGTCTGCCCCAAGCCTTCGACCGTTCTTCGACAACGCCTACTGCG 595
 Dolphin TCAACAAGAACAGCGTCTGCCCCAAGCCTTCGACCGTTCTTCGACAACGCCTACTGCG 595
 Sheep TCAACAAGAACAGCGTCTGCCCCAAGCCTTTGACCGCTTCTTCGACAACGCCTACTGCG 481
 Horse TCAACAAGAACAGCGTCTGCCCCAAGCCTTCGACCGTTCTTCGACAACGCCTACTGCG 595
 Cat TCAACAAGAACAGCGTCTGCCCCAAGCCTTCGACCGTTCTTCGACAACGCCTACTGCG 596
 Walrus TCAACAAGAACAGCGTCTGCCCCAAGCCTTCGACCGTTCTTCGACAACGCCTACTGCG 595
 Panda TCAACAAGAACAGCGTCTGCCCCAAGCCTTCGACCGTTCTTCGACAACGCCTACTGCG 481
 Shrew TCAACAAGAACAGCGTCTGCCCCAAGCCTTCGACCGTTCTTCGACAACGCCTACTGCG 593
 Dog TCAGCAAGAACAGCGTCTGCCCCAAGCCTTCGACCGTTCTTCGACAACGCCTACTGCG 581
 Pig TCAGCAAGAACAGCGTCTGCCCCAAGCCTTCGACCGTTCTTCGACAACGCCTACTGCG 481
 Chimpanzee TCAACAAGAACAGCGTCTGCCCCAAGCCTTCGACCGTTCTTCGACAACGCCTACTGCG 597
 Human TCAACAAGAACAGCGTCTGCCCCAAGCCTTCGACCGTTCTTCGACAACGCCTACTGCG 597
 Orangutan TCAACAAGAACAGCGTCTGCCCCAAGCCTTCGACCGTTCTTCGACAACGCCTACTGCG 599
 Baboon TCAACAAGAACAGCGTCTGCCCCAAGCCTTCGACCGTTCTTCGACAACGCCTACTGCG 595
 Marmoset TCAACAAGAACAGCGTCTGCCCCAAGCCTTCGACCGTTCTTCGACAACGCCTACTGCG 595
 *** ***** * * ***** ***** ***** ***** ***** *****

Buffalo GCGGCAGCG-----ACCCGCCCGCCGAGCCCCCTGCCCGGGCAAGGGTGAGGCCAAG 637
 Cow GCGGCAGCG-----ACCCGCCCGCCGAGCCCCCTGCCCGGGCAAGGGTGAGGCCAAG 637
 Whale GTGGCGGCG-----ACGCGCCCGCCGAGCCCCCTGCCCGGGCAAGGGTGAGGCCAAG 649
 Dolphin GTGGTGCG-----ACGCGCCCGCCGAGCCCCCTGCCCGGGCAAGGGTGAGGCCAAG 649
 Sheep GCGGCAGCG-----GGCCGCCCGCCGAGCCCCCATGCCGGC----- 519
 Horse GCGGCAGCG-----ACGCGCCCGCCGAGCCCCCTGCCCGGGCAAGGGTGAGGCCAAG 655
 Cat GCGGCAGCG-----ACGCGCCCGCCGAGCCCCCTGCCCGGGCAAGGGTGAGGCCAAG 650
 Walrus GCGGCAGCG-----ACGCGCCCGCCGAGCCCCCTGCCCGGGCAAGGGTGAGGCCAAG 649
 Panda GTGGCGGCG-----ACGCGCCCGCCGAGCCCCCTGCCCGGGCAAGGGTGAGGCCAAG 535
 Shrew GCGGCAGCG-----ACGCGCCCGCCGAGCCCCCTGCCCGGGCAAGGGTGAGGCCAAG 647
 Dog GCGGCAGCG-----ACGCGCCCGCCGAGCCCCCTGCCCGGGCAAGGGTGAGGCCAAG 635
 Pig GCGGCAGCG-----ACGCGCCCGCCGAGCCCCCTGCCCGGGCAAGGGTGAGGCCAAG 535
 Chimpanzee GTGGCGGCG-----ACGCGCCCGCCGAGCCCCCTGCCCGGGCAAGGGTGAGGCCAAG 651
 Human GTGGCGGCG-----ACCGCCCGCCGAGCCCCCTGCCCGGGCAAGGGTGAGGCCAAG 651
 Orangutan GTGGCGGCG-----ACGCGCCCGCCGAGCCCCCTGCCCGGGCAAGGGTGAGGCCAAG 653
 Baboon GTGGCGGCG-----ACGCTCCAGCCGAGCCCCCTGCCCGGGCAAGGGTGAGGCCAAG 649
 Marmoset GTGGCGGCG-----ACGCGCCCGCCGAGCCCCCTGCCCGGGCAAGGGTGAGGCCAAG 649
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Buffalo GGGAGCCTGAGGCGCCCCCGGCTCGGGACTGGCGTCCCGGGCTGAGGCGGGGGCCGAGG 697
 Cow GGGAGCCTGAGGCGCCCCAGCCTCGGGACTGGCGTCCCGGGCTGAGGCGGGGGCCGAGG 697
 Whale GGGAGCCGAGGCGCCCCCGGCTCGGGACTGGCGTCCCGGGCTGAGGCGGGGGCCGAGG 709
 Dolphin GGGAGCCGAGGCGCCCCCGGCTCGGGACTGGCGTCCCGGGCTGAGGCGGGGGCCGAGG 709
 Sheep ----GCC----CGCCCGCCGCCCG--CCGGCTTCT----- 547
 Horse GGGAGCCGAGGCGCCCCCGGCTCGGGACTGGCGTCCCGGGCTGAGGCGGGGGCCGAGG 715
 Cat GGGAGCCTGAGGCGCCCCCGGCTCGGGACTGGCGTCCCGGGCTGAGGCGGGGGCCGAGG 710
 Walrus GGGAGCCTGAGGCGACCCCGGCTCGGGACTGGCGTCCCGGGCTGCGGCGGGGGCCGAGG 709
 Panda GGGAGCCTGAGGCGACCCAGCCGCGGGACTGGCGTCCCGGGCTGAGGCGGGGGCCGAGG 595
 Shrew GGGAGCCGAGGCGCCCCCGGCTCGGGACTGGCGTCCCGGGCTGAGGCGGGGGCCGAGG 707
 Dog GGGAGCCGAGGCGACCCCGGCTCGGGACTGGCGTCCCGGGCTGAGGCGGGGGCCGAGG 695
 Pig GGGAGCCGAGGCGCCCCCGGCTCGGGACTGGCGTCCCGGGCTGAGGCGGGGGCCGAGG 595
 Chimpanzee GGGAGCCGAGGCGACCCCGGCTCGGGACTGGCGTCCCGGGCTGAGGCGGGTGCCGAGG 711
 Human GGGAGCCGAGGCGACCCCGGCTCGGGACTGGCGTCCCGGGCTGAGGCGGGTGCCGAGG 711
 Orangutan GGGAGCCGAGGCGCCCCCGGCTCGGGACTGGCGTCCCGGGCTGAGGCGGGTGCCGAGG 713
 Baboon GGGAGCCGAGGCGCCCCCGGCTCGGGACTGGGGTCCCGGGCTGAGGCGGGTACCAGG 709
 Marmoset GGGAGCCGAGGCGCCCCCGGCTCGGGACTAGCGTCCCGGGCTGAGGCGGGTGCCGAGG 709
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SUPPLEMENTARY FIG. S4. (Continued).

Buffalo C---CGAGGCCGAGAGGAGAAACACGAATCCCAGCTCGTCCGGTTCAGCCCACTC---GG 751
Cow C---CGAGGCCGAGAGGAGAAACACGAATCCCAGCTCGTCCGGTTCAGCCCACTC---GG 751
Whale CGGCCGAGGCCGAGGAGGAAAACACGAATCCCAGCTCGTCCGGTTCAGCCCACTC---GG 766
Dolphin CGGCCGAGGCCGAGGAGGAAAACACGAATCCCAGCTCGTCCGGTTCAGCCCACTC---GG 766
Sheep -----ACTCC-----TCAGTCAAC-----GG 563
Horse C---CGAGGCCGAGGAGGAAAACACGAATCCCAGCTCGTCTGGTTCAGCCCACTC---GG 769
Cat C---CGAGGCCGAGGAGGAAAACACGAATCCCAGCTCGTCCGGTTCAGCCCACTC---GG 764
Walrus C---CGAGGCCGAGGAGGAAAACACGAATCCCAGCTCGTCCGGTTCAGCCCACTC---GG 763
Panda C---CGAGGCCGAGGAGGAAAACACGAATCCCAGCTCGTCCGGTTCAGCCCACTC---CG 649
Shrew C---CGAGGCCGAGGAGGAGAACACGAACCCAGCTCGTCCGGTTCAGCCCACTC---GG 761
Dog C---CGAGGCCGAGGAGGAGACACGAACCCAGCTCGTCCGGTTCAGCCCACTCGGCCG 752
Pig C---CGAGGCCGAGGAGGAGAACACGAACCCAGCTCGTCCGGTTCAGCCCACTC---GG 649
Chimpanzee CG---GAGGCTGAGGAGGAGAACACAAATCCCAGCTCGTCCGGTTCAGCCCACTC---CG 765
Human CG---GAGGCTGAGGAGGAGAACACAAATCCCAGCTCGTCCGGTTCAGCCCACTC---CG 765
Orangutan CG---GAGGCTGAGGAGGAGAACACAAATCCCAGCTCGTCCGGTTCAGCCCACTC---CG 767
Baboon CG---GAGGCTGAGGAGGAGAACACAAATCCCAGCTCGTCCGGTTCAGCCCACTC---CG 763
Marmoset CG---GAGGCTGAGGAGGAGAACACAAATCCCAGCTCGTCCGGTTCATCCCACTC---TG 763

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Buffalo CGGCCAAGGAGCCGGCCAAGGGAGCCGCCCAACGCCCCCGCACCCGCAAGAAGCGCT 811
Cow CGGCCAAGGAGCCGGCCAAGGGAGCCGCCCAACGCCCCCGCACCCGCAAGAAGCGCT 811
Whale CGGCCAAGGAGCCGGCCAAGGGAGCCGCCCAACGCCCCCGCACCCGCAAGAAGCGCT 826
Dolphin CGGCCAAGGAGCCGGCCAAGGGAGCCGCCCAACGCCCCCGCACCCGCAAGAAGCGCT 826
Sheep GGAGCCGGGA--CGGCCTCG----TGTTTGGACGCCCCCGCACCCGCAAGAAGCGCT 616
Horse CGGCCAAGGAGCCGGCCAAGGGAGCCGCCCAACGCCCCCGCACCCGCAAGAAGCGCT 829
Cat CGGCCAAGGAGCCGGCCAAGGGAGCCGCCCAACGCCCCCGCACCCGCAAGAAGCGCT 824
Walrus CGGCCAAGGAGCCGGCCAAGGGAGCCGCCCAACGCCCCCGCACCCGCAAGAAGCGCT 823
Panda CGGCCAAGGAGCCGGCCAAGGGAGCCGCCCAACGCCCCCGCACCCGCAAGAAGCGCT 709
Shrew CGGCTAAGGAGCCGGCCAAGGGAGCCGCCCAACGCCCCCGCACCCGCAAGAAGCGCT 821
Dog CGGCCAAGGAGCCGGCCAAGGGAGCCGCCCAACGCCCCCGCACCCGCAAGAAGCGCT 812
Pig CGACCAAGGAGCCGGCCAAGGGAGCCGCCCAACGCCCCCGCACCCGCAAGAAGCGCT 709
Chimpanzee TGGCCAAGGAGCCGGCCAAGGGAGCCGCCCAACGCCCCCGCACCCGCAAGAAGCGCT 825
Human TGGCCAAGGAGCCGGCCAAGGGAGCCGCCCAACGCCCCCGCACCCGCAAGAAGCGCT 825
Orangutan TGGCCAAGGAGCCGGCCAAGGGAGCCGCCCAAGCGCCCGCACCCGCAAGAAGCGCT 827
Baboon CGGCCAAGGAGCCGGCCAAGGGAGCCGCCCAACGCCCCCGCACCCGCAAGAAGCGCT 823
Marmoset CGGCCAAGGAGCCGACCAAGGGAGCCGCCCAACGCTCCCGCACCCGCAAGAAGCGCT 823

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Buffalo GCCCTTATTTGAAATTCAGATCCGGGAAGCTGGAGCGAGAGTTTTTTTCAACGTGTATA 871
Cow GCCCTTATTCGAAATTCAGATCCGGGAAGCTGGAGCGAGAGTTTTTCTTCAACGTGTATA 871
Whale GCCCTTATTCGAAATTCAGATCCGGGAAGCTGGAGCGAGAGTTTTTCTTCAACGTGTATA 886
Dolphin GCCCTTATTCGAAATTCAGATCCGGGAAGCTGGAGCGAGAGTTTTTCTTCAACGTGTATA 886
Sheep GCCCTTATTCGAAATTCAGATCCGGGAAGCTGGAGCGAGAGTTTTTCTTCAACGTGTATA 676
Horse GCCCTTATTCGAAATTCAGATCCGGGAAGCTGGAGCGAGAGTTTTTCTTCAACGTGTATA 889
Cat GCCCTTATTCGAAATTCAGATCCGGGAAGCTGGAGCGAGAGTTTTTCTTCAACGTGTATA 884
Walrus GCCCTTATTCGAAATTCAGATCCGGGAAGCTGGAGAGAGAGTTTTTCTTCAACGTGTATA 883
Panda GCCCTTATTCGAAATTCAGATCCGGGAGCTGGAGCGGAGTTTTTCTTCAACGTGTATA 769
Shrew GTCCTTATTCGAAATTCAGATCCGGGAAGCTGGAGCGAGTTTTTCTTCAACGTGTATA 881
Dog GCCCTTATTCGAAATTCAGATCCGGGAAGCTGGAGCGAGAGTTTTTCTTCAACGTGTATA 872
Pig GCCCTTATTCGAAATTCAGATCCGGGAAGCTGGAGCGGAGTTTTTCTTCAACGTGTATA 769
Chimpanzee GCCCTTATTCGAAATTCAGATCCGGGAAGCTGGAGCGAGAGTTTTTCTTCAACGTGTATA 885
Human GCCCTTATTCGAAATTCAGATCCGGGAAGCTGGAGCGAGAGTTTTTCTTCAACGTGTATA 885
Orangutan GCCCTTATTCGAAATTCAGATCCGGGAAGCTGGAGCGAGAGTTTTTCTTCAACGTATATA 887
Baboon GCCCTTATTCGAAATTCAGATCCGGGAAGCTGGAGCGAGAGTTTTTCTTCAACGTATATA 883
Marmoset GCCCTTATTCGAAATTCAGATCCGGGAAGCTGGAGCGAGAGTTTTTCTTCAACGTGTATA 883

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SUPPLEMENTARY FIG. S4. (Continued).

Buffalo	TCAACAAAGAGAAGCGGGTGCAGCTGTTTCGGATGCTGAACCTGACGGACCGACAAGTGA	931
Cow	TCAACAAAGAGAAGCGGGTGCAGCTGCTCGGATGCTGAACCTGACGGACCGACAAGTGA	931
Whale	TCAACAAAGAAAAGCGGGTGCAGCTGCTCGGATGCTGAACCTGACGGACCGACAAGTGA	946
Dolphin	TCAACAAAGAAAAGCGGGTGCAGCTGCTCGGATGCTGAACCTGACGGACCGACAAGTGA	946
Sheep	TCAACAAAGAGAAGCGGGTGCAGCTGCTCGGATGCTGAACCTGACGGACCGACAAGTGA	736
Horse	TCAACAAAGAGAAGCGGGTGCAGCTGCTCGGATGCTGAACCTGACGGACCGACAAGTGA	949
Cat	TCAACAAAGAGAAGCGGGTGCAGCTGCTCGGATGCTGAACCTGACGGACCGACAAGTGA	944
Walrus	TCAACAAAGAGAAGCGGGTGCAGCTGCTCGGATGCTGAACCTGACGGACCGACAAGTGA	943
Panda	TCAACAAAGAGAAGCGGGTGCAGCTGCTCGGATGCTGAACCTGACGGACCGACAAGTGA	829
Shrew	TCAACAAAGAGAAGCGGGTGCAGCTGCTCGGATGCTGAACCTGACGGACCGACAAGTGA	941
Dog	TCAACAAAGAGAAGCGGGTGCAGCTGCTCGGATGCTGAACCTGACGGACCGACAAGTGA	932
Pig	TCAACAAAGAGAAGCGTCTGCAGCTGCTCCGCATGCTGAACCTGACGGACCGACAAGTGA	829
Chimpanzee	TCAACAAAGAGAAGCGGGTGCAGCTGCTCGGATGCTGAACCTGACGGACCGACAAGTGA	945
Human	TCAACAAAGAGAAGCGGGTGCAGCTGCTCGGATGCTGAACCTGACGGACCGACAAGTGA	945
Orangutan	TCAACAAAGAGAAGCGGGTGCAGCTGCTCGGATGCTGAACCTGACGGACCGACAAGTGA	947
Baboon	TCAACAAAGAGAAGCGGGTGCAGCTGCTCGGATGCTGAACCTGACGGACCGACAAGTGA	943
Marmoset	TCAACAAAGAGAAGCGGGTGCAGCTGCTCGGATGCTGAACCTGACGGACCGACAAGTGA	943
	***** ** * ***** ** *****	
Buffalo	AAATTTGGTTTCAGAACAGAAGGATGAAAGAAAAAAATAAGCAGAGACCGGCTGCAGT	991
Cow	AAATTTGGTTTCAGAACAGAAGGATGAAAGAAAAAACTAAGCAGAGACCGGCTGCAGT	991
Whale	AAATTTGGTTTCAGAACAGAAGGATGAAAGAAAAAACTAAGCAGAGACCGGCTGCAGT	1006
Dolphin	AAATTTGGTTTCAGAACAGAAGGATGAAAGAAAAAACTAAGCAGAGACCGGCTGCAGT	1006
Sheep	AAATTTGGTTTCAGAACAGAAGGATGAAAGAAAAAACTAAGCAGAGACCGGCTGCAGT	796
Horse	AAATTTGGTTTCAGAACAGAAGGATGAAAGAAAAAACTAAGCAGAGACCGGCTGCAGT	1009
Cat	AAATTTGGTTTCAGAACAGAAGGATGAAAGAAAAAACTAAGCAGAGACCGGCTGCAGT	1004
Walrus	AAATTTGGTTTCAGAACAGAAGGATGAAAGAAAAAACTAAGCAGAGACCGGCTGCAGT	1003
Panda	AAATTTGGTTTCAGAACAGAAGGATGAAAGAAAAAACTAAGCAGAGACCGGCTGCAGT	889
Shrew	AAATTTGGTTTCAGAACAGAAGGATGAAAGAAAAAACTAAGCAGAGACCGGCTGCAGT	1001
Dog	AAATTTGGTTTCAGAACAGAAGGATGAAAGAAAAAACTGAGCAGAGACCGGCTGCAGT	992
Pig	AAATTTGGTTTCAGAACAGAAGGATGAAAGAAAAAACTGAGCAGAGACCGGCTGCAGT	889
Chimpanzee	AAATTTGGTTTCAGAACAGAAGGATGAAAGAAAAAACTGAGCAGAGACCGGCTGCAGT	1005
Human	AAATTTGGTTTCAGAACAGAAGGATGAAAGAAAAAACTGAGCAGAGACCGGCTGCAGT	1005
Orangutan	AAATTTGGTTTCAGAACAGAAGGATGAAAGAAAAAACTGAGCAGAGACCGGCTGCAGT	1007
Baboon	AAATTTGGTTTCAGAACAGAAGGATGAAAGAAAAAACTGAGCAGAGACCGGCTGCAGT	1003
Marmoset	AAATTTGGTTTCAGAACAGAAGGATGAAAGAAAAAACTGAGCAGAGACCGGCTGCAAT	1003
	*** ***** ** * ***** ** * *****	
Buffalo	ATTTCTCGGGAAATCCTTGTCTGTAACC-GCAGACTGGG---CCCTTTTG-AGG-----	1040
Cow	ATTTCTCGGGAAATCCTTGTCTGTAACC-GCAGACTGGG---CCCTTTTG-AGG-----	1040
Whale	ATTTCTCAGGAAATCCTTGTCTGTAACC-GCGGACCGGG---CCCTTTT-G-GGG-----	1054
Dolphin	ATTTCTCAGGAAATCCTTGTCTGTAACC-GCGGACCGGG---CCCTTTT-G-GGG-----	1054
Sheep	ATTTCTCGGGAAATCCTTGTCTGTAA-----	822
Horse	ATTTCTCGGGAAATCCTTGTCTGTAACC-GCAGACCGGG---CCCTTTTG-GGG-----	1058
Cat	ATTTCTCGGGAAATCCTTGTCTGTAACC-GCAGACCGGG---CCCTTTTG-GGG-----	1053
Walrus	ATTTCTCGGGAAATCCTTGTCTGTAACC-GCAGACCGGG---CCCTTTAC-GGG-----	1052
Panda	ATTTCTCGGGAAATCCTTGTCTGTAA-----	915
Shrew	ATTTCTCGGGAAATCCTTGTCTGTAACC-GCAGGCGGAGGCGCCCTTTGGCGGA-----	1054
Dog	ATTTCTCGGGAAATCCTTGTCTGTAACC-GCAGACCGGG---CCCTTCTGGGGGCGGGGG	1048
Pig	ATTTCTCGGGAAATCCTTGTCTGTAA-----	915
Chimpanzee	ATTTCTCGGGAAATCCTTGTCTGTAACC-GCAGACCGGG---CCCTTTTG-----	1052
Human	ATTTCTCGGGAAATCCTTGTCTGTAACC-GCAGACCGGG---CCCTTTTG-----	1052
Orangutan	ATTTCTCGGGAAATCCTTGTCTGTAACC-GCAGACCGGG---CCCTTTTG-----	1054
Baboon	ATTTCTCGGGAAATCCTTGTCTGTAACC-GCAGACCGGG---CCCTTTTG-----	1050
Marmoset	ATTTCTCGGGAAATCCTTGTCTGTAACC-GCAGACCGGG---CCCTTTTG-----	1050
	**** * * * * *****	

SUPPLEMENTARY FIG. S4. (Continued).

Buffalo	-----GGAGG-GGGGAAAGGG-----GGAAATTATTTTATTTT	1072
Cow	-----GGAGG-GGGGAAAGGG-----GAAATTATTTTATTTT	1072
Whale	-----GGAGG-GGGGAAAGGG-----GGAGATTATTTTATTTT	1086
Dolphin	-----GGAGG-GGGGAAAGGG-----GGAGATTATTTTATTTT	1086
Sheep	-----	
Horse	-----GAGGGAGGGGAAAGGG-----GGAAATTATTTTATTTT	1091
Cat	-----GAGGGGGGAAAAGGG-----GGAAATTATTTTATTTT	1086
Walrus	-----GAGGGGGA-AAAGGG-----GAAATTATTTTATTTT	1084
Panda	-----	
Shrew	-----GGAGGAGGGGAGGGGGCCCGGGCGGGGGGAAGAAATTATTTTATTTT	1103
Dog	CCGGGTGGGGTGGGGGGGAAGAAAGGG-----GAGAAATTATTTTATTTT	1093
Pig	-----	
Chimpanzee	-----GGGGCGGGGGGAGGG-----GAAATTATTTTATTTT	1084
Human	-----GGGGCGGGGGGAGGG-----GAAATTATTTTATTTT	1084
Orangutan	-----GGGGCGGGGGGAGGG-----GAAATTATTTTATTTT	1086
Baboon	-----GGGGCGGGGGGAGGG-----GAAATTATTTTATTTT	1082
Marmoset	-----GGGGCGGGGGGAGGG-----GAAAGTTATTTTATTTT	1082
Buffalo	ATTTTATTTTATTTTCTAACTCGCTACTTTCCGCGGGTGGAAAAGTGGACT-GTGG	1131
Cow	ATTTTATTTTATTTTCTAACTCGCTACTTTCCGCGGGTGGAAAAGTGGACT-GTGG	1131
Whale	ATTTTATTTTATTTTCTAACTCGCTTCTTTCCGCGGGTGGAAAAGTGGACT-GTGG	1145
Dolphin	ATTTTATTTTATTTTCTAACTCGCTTCTTTCCGCGGGTGGAAAAGTGGACT-GTGG	1145
Sheep	-----	
Horse	ATTTTATTTTATTTTCTAAATCGCTTCTTTCTGCGGGTGGAAAAGTGGACT-GTGG	1150
Cat	ATTTTATTTTATTTTCTAACTCGCTTCTTTCCGCGGGTGGAAAAGTGGACT-GTGG	1145
Walrus	ATTTT-ATTTTATTTTCTAACTCGCTTCTTTCCGCCGGTGGAAAAGTGGACT-GTGG	1142
Panda	-----	
Shrew	ATTTTATTTTATTTTACGTTGGACCTCGCTTCTTCCGCGGGTGGAAAC-CCGACTCGTGG	1162
Dog	ATTTTATTTTATTTTCTAACTCGCTTCTTTCCGCGGGTGGAAAAGTGGACT-GTGG	1152
Pig	-----	
Chimpanzee	ATTTTATTTTATTTTCTAACTCGTCTTCTTTCCGCCGGTGGAAAAGTGGACT-GTGG	1143
Human	ATTTTATTTTATTTTCTAACTCGTCTTCTTTCCGCCGGTGGAAAAGTGGACT-GTGG	1143
Orangutan	A----ATTTTATTTTCTAACTCGTCTTCTTTCCGCCGATGGAAAAGTGGACT-GTGG	1140
Baboon	ATTTTATTTTATTTTCTAACTCGTCTTCTTTCCGCGGGTGGAAAAGTGGACT-GTGG	1141
Marmoset	ATTTTATTTTATTTTCTAAGTCGTCTTCTTCCGCTGGTGGAAAAGTGGACT-G-GG	1140
Buffalo	CCAGGGCTGGCCCCACTGCCGTTTCCCGCACGTCTTTCTGGACAACCTCCTTCACCT-T	1190
Cow	CCAGGGCTGGCCCCACTGCCGTTTCCCGCACGTCTTTCTGGACAACCTCCTTCACCT-T	1190
Whale	CCAGGGCTGGCCCCACTGCCGTTGCCCCGACTTCTTTCCGG--AACCTCCTTCACCT-T	1202
Dolphin	CCAGGGCTGGCCCCACTGCCGTTGCCCCGACTTCTTTCCGG--AACCTCCTTCACCT-T	1202
Sheep	-----	
Horse	CCAGGGCTGGCCCCACTGCCGTTGCCCCGACTTCTTTCCGG--AACCTCCTTCACCT-T	1207
Cat	CCAGGGCTGGCCCCACTGCCGTTGCCCCGACTTCTTTCTGG--AACCTCCTTCACCT-T	1202
Walrus	CCAGGGCTGGCCCCACTGCCGTTGCCCCCACATCTTTCTGG--AACCTCCTTCGCCT-T	1199
Panda	-----	
Shrew	CCAGGGCTGGCCCCCGGGC-----	1182
Dog	CCAGGGCTGGCCCCACTGCTG-----	1174
Pig	-----	
Chimpanzee	CCAGGGCTGGCCCCACCGCTGTGGCCGGCACTCCATTCCGG--AACCTCCTGGACCC-T	1200
Human	CCAGGGCTGGCCCCACCGCTGTGGCCGGCACTCCATTCCGG--AACCTCCTGGACCC-T	1200
Orangutan	CCAGGGCTGGCCCCACCGCTGTGGCAGGCACCTCCATTCCAG--AACCTCCTGGACCCCT	1198
Baboon	CCAGGGCTGGCCCCACCGCTGTGGCCGGCACTCCGTTCCGG--AACCTCCTGGACCC-T	1198
Marmoset	CCAGGGCTGGCCCCACCGCTGTGGCCGGCACTCCATTCCGG--AACCTCCTGGACCC-T	1197

SUPPLEMENTARY FIG. S4. (Continued).

Buffalo	-GGTCTGACT-----	1199
Cow	-GGTCTGACT-----	1199
Whale	-GGTCTGACTC--AGTGTGGGACAGGGACCGGGCCTGGAAAGGGGGTGAAGGAAAGTGT	1259
Dolphin	-GGTCTGACTC--AGTGTGGGACAGGGACCGGGCCTGGAAAGGGGGTGAAGGAGAGTGT	1259
Sheep	-----	
Horse	CGGGCTGACTC--TCGCTAGGGGACAGGACCGGGCCTG--AAAGGGGGTGAAGGGAAGTGT	1263
Cat	CCGTCTGACTCTCGCTGTGGGACAGGGACCGAGCCTGGAAAGAGGGTGAAGGGAAGTGT	1262
Walrus	CCGTCTGACTC--GCTGTGGGACAGGGACCGGGCCTGGAAAGAGGG--GGAAGGGAAGTGT	1256
Panda	-----	
Shrew	-----	
Dog	-----	
Pig	-----	
Chimpanzee	CTATCTGACTCTCGCTGTGGGACAGGGACCGGGCCTGGAAAGGGGG--TGAAGGGAAGTGT	1259
Human	CTATCTGACTCTCGCTGTGGGACAGGGACCGGGCCTGGAAAGGGGG--TGAAGGGAAGTGT	1259
Orangutan	CTATCTGACTCTCGCTGTGGGACAGGGACCGGGCCTGGAAACGGGG--TGAAGGGAAGTGT	1257
Baboon	CGATCTGACTCTCGCTGTGGGACCGGGACCGGGCCTGAAAAGGGGG--TGAAGGGAAGTGT	1257
Marmoset	CTGCCTGACTCGCGCTGTGGGACAGGGACCGGGCCTGGAAAGGGGG--TGAAGGGAAGTGT	1256

SUPPLEMENTARY FIG. S4. (Continued).