

**Additional file 6: Multiple nucleotide sequence alignment of GACA-tagged 1.3 kb transcript originating from different tissues and spermatozoa of buffalo**

<b>SPERM</b>	<b>ACAGACAGACAGACAGCAGTGTTCCTGTCCAGGCCGACCTGGAGGACCCACCTGGGGTG</b>	<b>60</b>
Testis	ACAGACAGACAGACAGCAGTGTTCCTGTCCAGGCCGACCTGGAGGACCCACCTGGGGTG	60
Ovary	ACAGACAGACAGACAGCAGTGTTCCTGTCCAGGCCGACCTGGAGGACCCACCTGGGGTG	60
Spleen	ACAGACAGACAGACAGCAGTGTTCCTGTCCAGGCCGACCTGGAGGACCCACCTGGGGTG	60
Liver	ACAGACAGACAGACAGCAGTGTTCCTGTCCAGGCCAACCTGGAGGACCCACCTGGGGTG	60
Kidney	ACAGACAGACAGACAGCAGTGTTCCTGTCCAGGCCAACCTGGAGGACCCACCTGGGGTG	60
	*****	
<b>SPERM</b>	<b>AATTTCCCTCACTTAGTCTTTGCTGCCGGGCTCGACTACCCGTCAGCCACTGTTGCTAG</b>	<b>120</b>
Testis	AATTTCCCTCACTTAGTCTTTGCTGCCGGGCTCGACTACCCATCAGCCACTGTTGCTAG	120
Ovary	AATTTCCCTCACTTAGTCTTTGCTGCCGGGCTCGACTACCCGTCAGCCACTGTTGCTAG	120
Spleen	AATTTCCCTCACTTAGTCTTTGCTGCCGGGCTCGACTACCCGTCAGCCACTGTTGCTAG	120
Liver	AATTTCCCTCACTTAGTCTTTGCTGCCGGGCTCGACTACCCGTCAGCCACTGTTGCTAG	120
Kidney	AATTTCCCTCACTTAGTCTTTGCTGCCGGGCTCGACTACCCGTCAGCCACTGTTGCTAG	120
	*****	
<b>SPERM</b>	<b>TGAAAGTAAACACCCATACGGGCTACACCAAGGGCACCTGTTGATTACAGAGCTCGTAAA</b>	<b>180</b>
Testis	TGAAAGTAAACACCCATACGGGCTACACCAAGGGCACCTGTTGATTACAGAGCTCGTAAA	180
Ovary	TGAAAGTAAACACCCATACGGGCTACACCAAGGGCACCTGTTGATTACAGAGCTCGTAAA	180
Spleen	TGAAAGTAAACACCCATACGGGCTACACCAAGGGCACCTGTTGATTACAGAGCTCGTAAA	180
Liver	TGAAAGTAAACACCCATACGGACTACACCAAGGGCACCTGTTGATTACAGAGCTCGTAAA	180
Kidney	TGAAAGTAAACACCCATACGGGCTACACCAAGGGCACCTGTTGATTACAGAGCTCGTAAA	180
	*****	
<b>SPERM</b>	<b>ACCCAGGAGCCCAAGCCACTTTATGACGTGCCAGAATCCAGGGGCAGGAGCAAAGCCTG</b>	<b>240</b>
Testis	ACCCAGGAGCCCAAGCCACTTTATGACGTGCCAGAATCCAGGGGCAGGAGCAAAGCCTG	240
Ovary	ACCCAGGAGCCCAAGCCACTTTATGACGTGCCAGAATCCAGGGGCAGGAGCAAAGCCTG	240
Spleen	CCAGGAGCCCAAGCCACTTTATGACGTGCCAGAATCCAGGGGCAGGAGCAAAGCCTG	240
Liver	ACCCAGGAGCCCAAGCCACTTTATGACGTGCCAGAATCCAGGGGCAGGAGCAAAGCCTG	240
Kidney	ACCCAGGAGCCCAAGCCACTTTATGACGTGCCAGAATCCAGGGGCAGGAGCAAAGCCTG	240
	*****	
<b>SPERM</b>	<b>GGGAAATCTCCCGGCTTCGAGGGCCACCGGATGCTTCAGCAGGAGCAGAGGGGCTGGCC</b>	<b>300</b>
Testis	GGGAAATCTCCCGGCTTCGAGGGCCACCGGATGCTTCAGCAGGAGCAGAGGGGCTGGCC	300
Ovary	GGGAAATCTCCCGGCTTCGAGGGCCACCGGATGCTTCAGCAGGAGCAGAGGGGCTGGCC	300
Spleen	GGGAAATCTCCCGGCTTCGAGGGCCACCGGATGCTTCAGCAGGAGCAGAGGGGCTGGCC	300
Liver	GGGAAATCTCCCGGCTTCGAGGGCCACCGGATGCTTCAGCAGGAGCAGAGGGGCTGGCC	300
Kidney	GGGAAATCTCCCGGCTTCGAGGGCCACCGGATGCTTCAGCAGGAGCAGAGGGGCTGGCC	300
	*****	
<b>SPERM</b>	<b>TCCGCCCACAGGTGAGATGTGGCCGTGGGCTTAGCTTTAAGCTGCTGACCCGCAGCGGC</b>	<b>360</b>
Testis	TCCGCCCACAGGTGAGATGTGGCCGTGGGCTTAGCTTTAAGCTGCTGACCCGCAGCGGC	360
Ovary	TCCGCCCACAGGTGAGATGTAGCCGTGGGCTTAGCTTTAAGCTGCTGACCCGCAGCGGC	360
Spleen	TCCGCCCACAGGTGAGATGTAGCCGTGGGCTTAGCTTTAAGCTGCTGACCCGCAGCGGC	360
Liver	TCCGCCCACAGGTGAGATGTGGCCGTGGGCTTAGCTTTAAGCTGCTGACCCGCAGCGGC	360
Kidney	TCCGCCCACAGGTGAGATGTGGCCGTGGGCTTAGCTTTAAGCTGCTGACCCGCAGCGGC	360
	*****	
<b>SPERM</b>	<b>TTGCTTAGACCACTCTGGGGCTTGGGGGCTTGGGGGGCTGGCCCCGCTGATGGTTGAAGA</b>	<b>420</b>
Testis	TTGCTTAGACCACTCTGGGGCTTGGGGGCTTGGGGGGCTGGCCCCGCTGATGGTTGAAGA	420
Ovary	TTGCTTAGACCACTCTGGGGCTTGGGGGCTTGGGGGGCTGGCCCCGCTGATGGTTGAAGA	420
Spleen	TTGCTTAGACCACTCTGGGGCTTGGGGGCTTGGGGGGCTGGCCCCGCTGATGGTTGAAGA	420
Liver	TTGCTTAGACCACTCTGGGGCTTGGGGGCTTGGGGGGCTGGCCCCGCTGATGGTTGAAGA	420
Kidney	TTGCTTAGACCACTCTGGGGCTTGGGGGCTTGGGGGGCTGGCCCCGCTGATGGTTGAAGA	420
	*****	
<b>SPERM</b>	<b>GCCAAACGGGACTTGGTGGGGGCCGTCGGGGTGGTGGTGCAGGCCCTGAGAGGCCAGTG</b>	<b>480</b>
Testis	GCCAAACGGGACTTGGTGGGGGCCGTCGGGGTGGTGGTGCAGGCCCTGAGAGGCCAGTG	480
Ovary	GCCAAACGGGACTTGGTGGGGGCCGTCGGGGTGGTGGTGCAGGCCCTGAGAGGCCAGTG	480
Spleen	GCCAAACGGGACTTGGTGGGGGCCGTCGGGGTGGTGGTGCAGGCCCTGAGAGGCCAGTG	480
Liver	GCCAAACGGGACTTGGTGGGGGCCGTCGGGGTGGTGGTGCAGGCCCTGAGAGGCCAGTG	480
Kidney	GCCAAACGGGACTTGGTGGGGGCCGTCGGGGTGGTGGTGCAGGCCCTGAGAGGCCAGTG	480
	*****	

SPERM GGCTTGCGGGGAGCCCTGCCTCTGTGACGGTGTACACCCAGTGAGCAGCCCTCAGAGAGG 540  
Testis GGCTTGCGGGGAGCCCTGCCTCTGTGACGGTGTACACCCAGTGAGTAGCCCTCAGAGAGG 540  
Ovary GGCTTGCGGGGAGCCCTGCCTCTGTGACGGTGTACACCCAGTGAGTAGCCCTCAGAGAGG 540  
Spleen GGCTTGCGGGGAGCCCTGCCTCTGTGACGGTGTACACCCAGTGAGTAGCCCTCAGAGAGG 540  
Liver GGCTTGCGGGGAGCCCTGCCTCTGTGACGGTGTACACCCAGTGAGTAGCCCTCAGAGAGG 540  
Kidney GGCTTGCGGGGAGCCCTGCCTCTGTGACGGTGTACACCCAGTGAGTAGCCCTCAGAGAGG 540  
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SPERM GAGAAGGAAGTGGACCCCGGGAGGGCACTTTTGGTTGCTGTTTGCCCTCTCCTCAATTTCC 600  
Testis GAGAAGGAAGTGGACCCCGGGAGGGCACTTTTGGTTGCTGTTTGCCCTCTCCTCAATTTCC 600  
Ovary GAGAAGGAAGTGGACCCCGGGAGGGCACTTTTGGTTGCTGTTTGCCCTCTCCTCAATTTCC 600  
Spleen GAGAAGGAAGTGGACCCCGGGAGGGCACTTTTGGTTGCTGTTTGCCCTCTCCTCAATTTCC 600  
Liver GAGAAGGAAGTGGACCCCGGGAGGGCACTTTTGGTTGCTGTTTGCCCTCTCCTCAATTTCC 600  
Kidney GAGAAGGAAGTGGACCCCGGGAGGGCACTTTTGGTTGCTGTTTGCCCTCTCCTCAATTTCC 600  
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SPERM TCTTTCAGAGGCTAATTTGGGATTCGTTTGTCTTTGCTTCTGGGCTCTCTGAGGGTGCAGGG 660  
Testis TCTTTCAGAGGCTAATTTGGGATTCGTTTGTCTTTGCTTCTGGGCTCTCTGAGGGTGCAGGG 660  
Ovary TCTTTCAGAGGCTAATTTGGGATTCGTTTGTCTTTGCTTCTGGGCTCTCTGAGGGTGCAGGG 660  
Spleen TCTTTCAGAGGCTAATTTGGGATTCGTTTGTCTTTGCTTCTGGGCTCTCTGAGGGTGCAGGG 660  
Liver TCTTTCAGAGGCTAATTTGGGATTCGTTTGTCTTTGCTTCTGGGCTCTCTGAGGGTGCAGGG 660  
Kidney TCTTTCAGAGGCTAATTTGGGATTCGTTTGTCTTTGCTTCTGGGCTCTCTGAGGGTGCAGGG 660  
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SPERM CCTCCCCTGGAGGAGGTCCCTTGGTCCCTCAGGTGGCCTTTTAAGCGTGGTAAGCGTGGG 720  
Testis CCTCCCCTGGAGGAGGTCCCTTGGTCCCTCAGGTGGCCTTTTAAGTGT-----GGG 710  
Ovary CCTCCCCTGGAGGAGGTCCCTTGGTCCCTCAGGTGGCCTTTTAAGTGT-----GGG 710  
Spleen CCTCCCCTGGAGGAGGTCCCTTGGTCCCTCAGGTGGCCTTTTAAGTGT-----GGG 710  
Liver CCTCCCCTGGAGGAGGTCCCTTGGTCCCTCAGGTGGCCTTTTAAGTGT-----GGG 710  
Kidney CCTCCCCTGGAGGAGGTCCCTTGGTCCCTCAGGTGGCCTTTTAAGTGT-----GGG 710  
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SPERM GCTTGGCTCTCAAGCAGAGCATGTGCAACAAGTCACCTGAAAAGATTGTAAGAATGCAAA 780  
Testis GCTTGGCTCTCAAGCAGAGCATGTGCAACAAGTCACCTGAAAAGATTGTAAGAATGCAAA 770  
Ovary GCTTGGCTCTCAAGCAGAGCATGTGCAACAAGTCACCTGAAAAGATTGTAAGAATGCAAA 770  
Spleen GCTTGGCTCTCAAGCAGAGCATGTGCAACAAGTCACCTGAAAAGATTGTAAGAATGCAAA 770  
Liver GCTTGGCTCTCAAGCAGAGCATGTGCAACAAGTCACCTGAAAAGATTGTAAGAATGCAAA 770  
Kidney GCTTGGCTCTCAAGCAGAGCATGTGCAACAAGTCACCTGAAAAGATTGTAAGAATGCAAA 770  
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SPERM TGTCCAGCCTCCTCCAAGAGACGGCGGGGCCAGGCTTAGGGGCGTGGCCTGGGTGGCTG 840  
Testis TGTCCAGCCTCCTCCAAGAGACGGCGGGGCCAGGCTTAGGGGCGTGGCCTGGGTGGCTG 830  
Ovary TGTCCAGCCTCCTCCAAGAGACGGCGGGGCCAGGCTTAGGGGCGTGGCCTGGGTGGCTG 830  
Spleen TGTCCAGCCTCCTCCAAGAGACGGCGGGGCCAGGCTTAGGGGCGTGGCCTGGGTGGCTG 830  
Liver TGTCCAGCCTCCTCCAAGAGACGGCGGGGCCAGGCTTAGGGGCGTGGCCTGGGTGGCTG 830  
Kidney TGTCCAGCCTCCTCCAAGAGACGGCGGGGCCAGGCTTAGGGGCGTGGCCTGGGTGGCTG 830  
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SPERM CATTTTTATTAAGCGCCTCCCCAACCCAGGTGACCTGGGAACCCCACTTTGAAAAATGCT 900  
Testis CATTTTTATTAAGCGCCTCCCCAACCCAGGTGACCTGGGAACCCCACTTTGAAAAATGCT 890  
Ovary CATTTTTATTAAGCGCCTCCCCAACCCAGGTGACCTGGGAACCCCACTTTGAAAAATGCT 890  
Spleen CATTTTTATTAAGCGCCTCCCCAACCCAGGTGACCTGGGAACCCCACTTTGAAAAATGCT 890  
Liver CATTTTTATTAAGCGCCTCCCCAACCCAGGTGACCTGGGAACCCCACTTTGAAAAATGCT 890  
Kidney CATTTTTATTAAGCGCCTCCCCAACCCAGGTGACCTGGGAACCCCACTTTGAAAAATGCT 890  
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SPERM GGGGCTCAGGGCCAAGACACCTGGGTTTGGGGTCGGGATCCAGCAGGAACCGCGCCGATG 960  
Testis GGGGCTCAGGGCCAAGACACCTGGGTTTGGGGTCGGGATCCAGCAGGAACCGCGCCGATG 950  
Ovary GGGGCTCAGGGCCAAGACACCTGGGTTTGGGGTCGGGATCCAGCAGGAACCGCGCCGATG 950  
Spleen GGGGCTCAGGGCCAAGACACCTGGGTTTGGGGTCGGGATCCAGCAGGAACCGCGCCGATG 950  
Liver GGGGCTCAGGGCCAAGACACCTGGGTTTGGGGTCGGGATCCAGCAGGAACCGCGCCGATG 950  
Kidney GGGGCTCAGGGCCAAGACACCTGGGTTTGGGGTCGGGATCCAGCAGGAACCGCGCCGATG 950  
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SPERM AGCGCGGTACTGCGTGTAACACGCGGACACAGTTCGAGGTATCGGTTGACACAGGGCAA 1020  
Testis AGCGCGGTACTGCGTGTAACACGCGGACACAGTTCGAGGTATCGGTTGACACAGGGCAA 1010  
Ovary AGCGCGGTACTGCGTGTAACACGCGGACACAGTTCGAGGTATCGGTTGACACAGGGCAA 1010  
Spleen AGCGCGGTACTGCGTGTAACACGCGGACACAGTTCGAGGTATCGGTTGACACAGGGCAA 1010  
Liver AGCGCGGTACTGCGTGTAACACGCGGACACAGTTCGAGGTATCGGTTGACACAGGGCAA 1010  
Kidney AGCGCGGTACTGCGTGTAACACGCGGACACAGTTCGAGGTATCGGTTGACACAGGGCAA 1010  
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SPERM CCGCCCCAGGAACTGCAGCGCATCCTGTTGTTGCTTTCCAGCCGGGATTTATTAAATC 1080  
Testis CCGCCCCAGGAACTGCAGCGCATCCTGTTGTTGCTTTCCAGCCGGGATTTATTAAATC 1070  
Ovary CCGCCCCAGGAACTGCAGCGCATCCTGTTGTTGCTTTCCAGCCGGGATTTATTAAATC 1070  
Spleen CCGCCCCAGGAACTGCAGCGCATCCTGTTGTTGCTTTCCAGCCGGGATTTATTAAATC 1070  
Liver CCGCCCCAGGAACTGCAGCGCATCCTGTTGTTGCTTTCCAGCCGGGATTTATTAAATC 1070  
Kidney CCGCCCCAGGAACTGCAGCGCATCCTGTTGTTGCTTTCCAGCCGGGATTTATTAAATC 1070  
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SPERM AAATATGCTTCTGTGAATTCTCCCATTTAACCCCTCAAACAGCCTGTGGCATGCGTCTGC 1140  
Testis AAATATGCTTCTGTGAATTCTCCCATTTAACCCCTCAAACAGCCTGTGGCATGCGTCTGC 1130  
Ovary AAATATGCTTCTGTGAATTCTCCCATTTAACCCCTCAAACAGCCTGTGGCATGCGTCTGC 1130  
Spleen AAATATGCTTCTGTGAATTCTCCCATTTAACCCCTCAAACAGCCTGTGGCATGCGTCTGC 1130  
Liver AAATATGCTTCTGTGAATTCTCCCATTTAACCCCTCAAACAGCCTGTGGCATGCGTCTGC 1130  
Kidney AAATATGCTTCTGTGAATTCTCCCATTTAACCCCTCAAACAGCCTGTGGCATGCGTCTGC 1130  
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SPERM CGATGGCCCCGTTTTTCCGATTTGGCAAAGTGAGGTTTCGAGTCGGGAAGCCCCCTAAAG 1200  
Testis CGATGGCCCCGTTTTTCCGATTTGGCAAAGTGAGGTTTCGAGTCGGGAAGCCCCCTAAAG 1190  
Ovary CGATGGCCCCGTTTTTCCGATTTGGCAAAGTGAGGTTTCGAGTCGGGAAGCCCCCTAAAG 1190  
Spleen CGATGGCCCCGTTTTTCCGATTTGGCAAAGTGAGGTTTCGAGTCGGGAAGCCCCCTAAAG 1190  
Liver CGATGGCCCCGTTTTTCCGATTTGGCAAAGTGAGGTTTCGAGTCGGGAAGCCCCCTAAAG 1190  
Kidney CGATGGCCCCGTTTTTCCGATTTGGCAAAGTGAGGTTTCGAGTCGGGAAGCCCCCTAAAG 1190  
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SPERM GGTACCTGGTGGGGACTTGAGCTGAGACCGAGGACGGTCCCACGCGGCAGCCTCACCCG 1260  
Testis GGTACCTGGTGGGGACTTGAGCTGAGACCGAGGACGGTCCCACGCGGCAGCCTCACCCG 1250  
Ovary GGTACCTGGTGGGGACTTGAGCTGAGACCGAGGACGGTCCCACGCGGCAGCCTCACCCG 1250  
Spleen GGTACCTGGTGGGGACTTGAGCTGAGACCGAGGACGGTCCCACGCGGCAGCCTCACCCG 1250  
Liver GGTACCTGGTGGGGACTTGAGCTGAGACCGAGGACGGTCCCACGCGGCAGCCTCACCCG 1250  
Kidney GGTACCTGGTGGGGACTTGAGCTGAGACCGAGGACGGTCCCACGCGGCAGCCTCACCCG 1250  
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SPERM GGCAGGGGCTGCCCTCCATGGAGCCGAGTTCTGAGCATGTCTGTCTGTCTGT 1313  
Testis GGCAGGGGCTGCCCTCCATGGAGCCGAGTTCTGAGCATGTCTGTCTGTCTGT 1303  
Ovary GGCAGGGGCTGCCCTCCATGGAGCCGAGTTCTGAGCATGTCTGTCTGTCTGT 1303  
Spleen GGCAGGGGCTGCCCTCCATGGAGCCGAGTTCTGAGCATGTCTGTCTGTCTGT 1303  
Liver GGCAGGGGCTGCCCTCCATGGAGCCGAGTTCTGAGCATGTCTGTCTGTCTGT 1303  
Kidney GGCAGGGGCTGCCCTCCATGGAGCCGAGTTCTGAGCATGTCTGTCTGTCTGT 1303  
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