

Appendix 3: Alignment and Primer Design for Dog, Fox, Hedgehog and Rat Cytochrome *b* Genes

Primer positions are highlighted in yellow.

Dog

Animal	Breed	Asscesion Number
Dog 01	Jamthund	DQ480502
Dog 02	Swedish Elkhound	DQ480501
Dog 03	Shetland Sheepdog	DQ480500
Dog 04	Siberian Husky	DQ480499
Dog 05	N/A	NC_002008
Dog 06	N/A	CFU96639
Dog 07	Jack Russell Terrier	AY656738
Dog 08	Poodle	AY656739
Dog 09	Old English Sheepdog	AY656742
Dog 10	Irish Setter	AY656753

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Dog4      -GTATGTTATCATTATTTCCTACATGGAATTTAACCATGACTAATGACATGAAAAATCATC 59
Dog7      -GTATGTTATCATTATTTCCTACATGGAATTTAACCATGACTAATGACATGAAAAATCATC 59
Dog3      -GTATGTTATCATTATTTCCTACATGGAATTTAACCATGACTAATGACATGAAAAATCATC 59
Dog8      -GTATGTTATCATTATTTCCTACATGGAATTTAACCATGACTAATGACATGAAAAATCATC 59
Dog5      ----TGTTATCATTATTTCCTACATGGAATTTAACCATGACTAATGACATGAAAAATCATC 56
Dog6      ----TGTTATCATTATTTCCTACATGGAATTTAACCATGACTAATGACATGAAAAATCATC 56
Dog10     -GTATGTTATCATTATTTCCTACATGGAATTTAACCATGACTAATGACATGAAAAATCATC 59
Dog9      -GTATGTTATCATTATTTCCTACATGGAATTTAACCATGACTAATGACATGAAAAATCATC 59
Dog1      -GTATGTTATCATTATTTCCTACATGGAATTTAACCATGACTAATGACATGAAAAATCATC 59
Dog2      TGTATGTTATCATTATTTCCTACATGGAATTTAACCATGACTAATGACATGAAAAATCATC 60
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Dog4      GTTGTATTTCAACTATAAGAACATTAATGACCAACATTGCAAAAACCCACCCACTAGCCA 119
Dog7      GTTGTATTTCAACTATAAGAACATTAATGACCAACATTGCAAAAACCCACCCACTAGCCA 119
Dog3      GTTGTATTTCAACTATAAGAACATTAATGACCAACATTGCAAAAACCCACCCACTAGCCA 119
Dog8      GTTGTATTTCAACTATAAGAACATTAATGACCAACATTGCAAAAACCCACCCACTAGCCA 119
Dog5      GTTGTATTTCAACTATAAGAACATTAATGACCAACATTGCAAAAACCCACCCACTAGCCA 116
Dog6      GTTGTATTTCAACTATAAGAACATTAATGACCAACATTGCAAAAACCCACCCACTAGCCA 116
Dog10     GTTGTATTTCAACTATAAGAACATTAATGACCAACATTGCAAAAACCCACCCACTAGCCA 119
Dog9      GTTGTATTTCAACTATAAGAACATTAATGACCAACATTGCAAAAACCCACCCACTAGCCA 119
Dog1      GTTGTATTTCAACTATAAGAACATTAATGACCAACATTGCAAAAACCCACCCACTAGCCA 119
Dog2      GTTGTATTTCAACTATAAGAACATTAATGACCAACATTGCAAAAACCCACCCACTAGCCA 120
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Dog4      AAATTGTTAATAAATCAATTCATTGACCTCCAGCGCCGCTAAACATCTCTGCTTGATGGA 179
Dog7      AAATTGTTAATAAATCAATTCATTGACCTCCAGCGCCGCTAAACATCTCTGCTTGATGGA 179
Dog3      AAATTGTTAATAAATCAATTCATTGACCTCCAGCGCCGCTAAACATCTCTGCTTGATGGA 179
Dog8      AAATTGTTAATAAATCAATTCATTGACCTCCAGCGCCGCTAAACATCTCTGCTTGATGGA 179
Dog5      AAATTGTTAATAAATCAATTCATTGACCTCCAGCGCCGCTAAACATCTCTGCTTGATGGA 176
Dog6      AAATTGTTAATAAATCAATTCATTGACCTCCAGCGCCGCTAAACATCTCTGCTTGATGGA 176
Dog10     AAATTGTTAATAAATCAATTCATTGACCTCCAGCGCCGCTAAACATCTCTGCTTGATGGA 179
Dog9      AAATTGTTAATAAATCAATTCATTGACCTCCAGCGCCGCTAAACATCTCTGCTTGATGGA 179
Dog1      AAATTGTTAATAAATCAATTCATTGACCTCCAGCGCCGCTAAACATCTCTGCTTGATGGA 179
Dog2      AAATTGTTAATAAATCAATTCATTGACCTCCAGCGCCGCTAAACATCTCTGCTTGATGGA 180
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Dog4      ACTTCGGATCCTTACTAGGAGTATGCTTGATTCTACAGATTCTAACAGGTTTGTTCTTAG 239
Dog7      ACTTCGGATCCTTACTAGGAGTATGCTTGATTCTACAGATTCTAACAGGTTTGTTCTTAG 239
Dog3      ACTTCGGATCCTTACTAGGAGTATGCTTGATTCTACAGATTCTAACAGGTTTGTTCTTAG 239
Dog8      ACTTCGGATCCTTACTAGGAGTATGCTTGATTCTACAGATTCTAACAGGTTTGTTCTTAG 239
Dog5      ACTTCGGATCCTTACTAGGAGTATGCTTGATTCTACAGATTCTAACAGGTTTGTTCTTAG 236
Dog6      ACTTCGGATCCTTACTAGGAGTATGCTTGATTCTACAGATTCTAACAGGTTTGTTCTTAG 236
Dog10     ACTTCGGATCCTTACTAGGAGTATGCTTGATTCTACAGATTCTAACAGGTTTGTTCTTAG 239
Dog9      ACTTCGGATCCTTACTAGGAGTATGCTTGATTCTACAGATTCTAACAGGTTTGTTCTTAG 239
Dog1      ACTTCGGATCCTTACTAGGAGTATGCTTGATTCTACAGATTCTAACAGGTTTGTTCTTAG 239
Dog2      ACTTCGGATCCTTACTAGGAGTATGCTTGATTCTACAGATTCTAACAGGTTTGTTCTTAG 240
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Dog4 CTATGCACTATACATCGGACACAGCCACAGCTTTTTCATCAGTCACGCACATCTGCCGAG 299
Dog7 CTATGCACTATACATCGGACACAGCCACAGCTTTTTCATCAGTCACCCACATCTGCCGAG 299
Dog3 CTATGCACTATACATCGGACACAGCCACAGCTTTTTCATCAGTCACCCACATCTGCCGAG 299
Dog8 CTATGCACTATACATCGGACACAGCCACAGCTTTTTCATCAGTCACCCACATCTGCCGAG 299
Dog5 CTATGCACTATACATCGGACACAGCCACAGCTTTTTCATCAGTCACCCACATCTGCCGAG 296
Dog6 CTATGCACTATACATCGGACACAGCCACAGCTTTTTCATCAGTCACCCACATCTGCCGAG 296
Dog10 CTATGCACTATACATCGGACACAGCCACAGCTTTTTCATCAGTCACCCACATCTGCCGAG 299
Dog9 CTATGCACTATACATCGGACACAGCCACAGCTTTTTCATCAGTCACCCACATCTGCCGAG 299
Dog1 CTATGCACTATACATCGGACACAGCCACAGCTTTTTCATCAGTCACCCACATCTGCCGAG 299
Dog2 CTATGCACTATACATCGGACACAGCCACAGCTTTTTCATCAGTCACCCACATCTGCCGAG 300

Dog4 ACGTTAACTACGGCTGAATTATCCGCTACATGCACGCAAAATGGCGCTTCCATATTCTTTA 359
Dog7 ACGTTAACTACGGCTGAATTATCCGCTATATGCACGCAAAATGGCGCTTCCATATTCTTTA 359
Dog3 ACGTTAACTACGGCTGAATTATCCGCTATATGCACGCAAAATGGCGCTTCCATATTCTTTA 359
Dog8 ACGTTAACTACGGCTGAATTATCCGCTATATGCACGCAAAATGGCGCTTCCATATTCTTTA 359
Dog5 ACGTTAACTACGGCTGAATTATCCGCTATATGCACGCAAAATGGCGCTTCCATATTCTTTA 356
Dog6 ACGTTAACTACGGCTGAATTATCCGCTATATGCACGCAAAATGGCGCTTCCATATTCTTTA 356
Dog10 ACGTTAACTACGGCTGAATTATCCGCTATATGCACGCAAAATGGCGCTTCCATATTCTTTA 359
Dog9 ACGTTAACTACGGCTGAATTATCCGCTATATGCACGCAAAATGGCGCTTCCATATTCTTTA 359
Dog1 ACGTTAACTACGGCTGAATTATCCGCTATATGCACGCAAAATGGCGCTTCCATATTCTTTA 359
Dog2 ACGTTAACTACGGCTGAATTATCCGCTATATGCACGCAAAATGGCGCTTCCATATTCTTTA 360

Dog4 TCTGCCTATTTCTACATGTAGGACGAGGCCATATTACGGATCCTATGTATTTCATAGAAA 419
Dog7 TCTGCCTATTTCTACATGTAGGACGAGGCCATATTACGGATCCTATGTATTTCATAGAAA 419
Dog3 TCTGCCTATTTCTACATGTAGGACGAGGCCATATTACGGATCCTATGTATTTCATAGAAA 419
Dog8 TCTGCCTATTTCTACATGTAGGACGAGGCCATATTACGGATCCTATGTATTTCATAGAAA 419
Dog5 TCTGCCTATTTCTACATGTAGGACGAGGCCATATTACGGATCCTATGTATTTCATAGAAA 416
Dog6 TCTGCCTATTTCTACATGTAGGACGAGGCCATATTACGGATCCTATGTATTTCATAGAAA 416
Dog10 TCTGCCTATTTCTACATGTAGGACGAGGCCATATTACGGATCCTATGTATTTCATAGAAA 419
Dog9 TCTGCCTATTTCTACATGTAGGACGAGGCCATATTACGGATCCTATGTATTTCATAGAAA 419
Dog1 TCTGCCTATTTCTACATGTAGGACGAGGCCATATTACGGATCCTATGTATTTCATAGAAA 419
Dog2 TCTGCCTATTTCTACATGTAGGACGAGGCCATATTACGGATCCTATGTATTTCATAGAAA 420

Dog4 CATGAAACATTGGAATTGTACTATTATTCGCAACCATAGCCACAGCATTTCATGGGCTATG 479
Dog7 CATGAAACATTGGAATTGTACTATTATTCGCAACCATAGCCACAGCATTTCATGGGCTATG 479
Dog3 CATGAAACATTGGAATTGTACTATTATTCGCAACCATAGCCACAGCATTTCATGGGCTATG 479
Dog8 CATGAAACATTGGAATTGTACTATTATTCGCAACCATAGCCACAGCATTTCATGGGCTATG 479
Dog5 CATGAAACATTGGAATTGTACTATTATTCGCAACCATAGCCACAGCATTTCATGGGCTATG 476
Dog6 CATGAAACATTGGAATTGTACTATTATTCGCAACCATAGCCACAGCATTTCATGGGCTATG 476
Dog10 CATGAAACATTGGAATTGTACTATTATTCGCAACCATAGCCACAGCATTTCATGGGCTATG 479
Dog9 CATGAAACATTGGAATTGTACTATTATTCGCAACCATAGCCACAGCATTTCATGGGCTATG 479
Dog1 CATGAAACATTGGAATTGTACTATTATTCGCAACCATAGCCACAGCATTTCATGGGCTATG 479
Dog2 CATGAAACATTGGAATTGTACTATTATTCGCAACCATAGCCACAGCATTTCATGGGCTATG 480

Dog4 TACTACCATGAGGACAAATATCATTTTGGAGGCAACTGTAATCACTAATCTTCTCTCTG 539
Dog7 TACTACCATGAGGACAAATATCATTTTGGAGGCAACTGTAATCACTAATCTTCTCTCTG 539
Dog3 TACTACCATGAGGACAAATATCATTTTGGAGGCAACTGTAATCACTAATCTTCTCTCTG 539
Dog8 TACTACCATGAGGACAAATATCATTTTGGAGGCAACTGTAATCACTAATCTTCTCTCTG 539
Dog5 TACTACCATGAGGACAAATATCATTTTGGAGGCAACTGTAATCACTAATCTTCTCTCTG 536
Dog6 TACTACCATGAGGACAAATATCATTTTGGAGGCAACTGTAATCACTAATCTTCTCTCTG 536
Dog10 TACTACCATGAGGACAAATATCATTTTGGAGGCAACTGTAATCACTAATCTTCTCTCTG 539
Dog9 TACTACCATGAGGACAAATATCATTTTGGAGGCAACTGTAATCACTAATCTTCTCTCTG 539
Dog1 TACTACCATGAGGACAAATATCATTTTGGAGGCAACTGTAATCACTAATCTTCTCTCTG 539
Dog2 TACTACCATGAGGACAAATATCATTTTGGAGGCAACTGTAATCACTAATCTTCTCTCTG 540

Dog4 CCATCCCTTATATCGGAACCTGACTTAGTAGAATGGATCTGAGGCGGCTTCTCAGTGGACA 599
Dog7 CCATCCCTTATATCGGAACCTGACTTAGTAGAATGGATCTGAGGCGGCTTCTCAGTGGACA 599
Dog3 CCATCCCTTATATCGGAACCTGACTTAGTAGAATGGATCTGAGGCGGCTTCTCAGTGGACA 599
Dog8 CCATCCCTTATATCGGAACCTGACTTAGTAGAATGGATCTGAGGCGGCTTCTCAGTGGACA 599
Dog5 CCATCCCTTATATCGGAACCTGACTTAGTAGAATGGATCTGAGGCGGCTTCTCAGTGGACA 596
Dog6 CCATCCCTTATATCGGAACCTGACTTAGTAGAATGGATCTGAGGCGGCTTCTCAGTGGACA 596
Dog10 CCATCCCTTATATCGGAACCTGACTTAGTAGAATGGATCTGAGGCGGCTTCTCAGTGGACA 599
Dog9 CCATCCCTTATATCGGAACCTGACTTAGTAGAATGGATCTGAGGCGGCTTCTCAGTGGACA 599
Dog1 CCATCCCTTATATCGGAACCTGACTTAGTAGAATGGATCTGAGGCGGCTTCTCAGTGGACA 599
Dog2 CCATCCCTTATATCGGAACCTGACTTAGTAGAATGGATCTGAGGCGGCTTCTCAGTGGACA 600

Dog4 AAGCAACCCTAACACGATTCTTTGCATTCCATTTCATCCTCCCTTTTCATCATCGCAGCTC 659
 Dog7 AAGCAACCCTAACACGATTCTTTGCATTCCATTTCATCCTCCCTTTTCATCATCGCAGCTC 659
 Dog3 AAGCAACCCTAACACGATTCTTTGCATTCCATTTCATCCTCCCTTTTCATCATCGCAGCTC 659
 Dog8 AAGCAACCCTAACACGATTCTTTGCATTCCATTTCATCCTCCCTTTTCATCATCGCAGCTC 659
 Dog5 AAGCAACCCTAACACGATTCTTTGCATTCCATTTCATCCTCCCTTTTCATCATCGCAGCTC 656
 Dog6 AAGCAACCCTAACACGATTCTTTGCATTCCATTTCATCCTCCCTTTTCATCATCGCAGCTC 656
 Dog10 AAGCAACCCTAACACGATTCTTTGCATTCCATTTCATCCTCCCTTTTCATCATCGCAGCTC 659
 Dog9 AAGCAACCCTAACACGATTCTTTGCATTCCATTTCATCCTCCCTTTTCATCATCGCAGCTC 659
 Dog1 AAGCAACCCTAACACGATTCTTTGCATTCCATTTCATCCTCCCTTTTCATCATCGCAGCTC 659
 Dog2 AAGCAACCCTAACACGATTCTTTGCATTCCATTTCATCCTCCCTTTTCATCATCGCAGCTC 660

Dog4 TAGCAATAGTACACCTCCTATTTCTACACGAAACCGGATCCAAACAACCCCTTCAGGAATCA 719
 Dog7 TAGCAATAGTACACCTCCTATTTCTACACGAAACCGGATCCAAACAACCCCTTCAGGAATCA 719
 Dog3 TAGCAATAGTACACCTCCTATTTCTACACGAAACCGGATCCAAACAACCCCTTCAGGAATCA 719
 Dog8 TAGCAATAGTACACCTCCTATTTCTACACGAAACCGGATCCAAACAACCCCTTCAGGAATCA 719
 Dog5 TAGCAATAGTACACCTCCTATTTCTACACGAAACCGGATCCAAACAACCCCTTCAGGAATCA 716
 Dog6 TAGCAATAGTACACCTCCTATTTCTACACGAAACCGGATCCAAACAACCCCTTCAGGAATCA 716
 Dog10 TAGCAATAGTACACCTCCTATTTCTACACGAAACCGGATCCAAACAACCCCTTCAGGAATCA 719
 Dog9 TAGCAATAGTACACCTCCTATTTCTACACGAAACCGGATCCAAACAACCCCTTCAGGAATCA 719
 Dog1 TAGCAATAGTACACCTCCTATTTCTACACGAAACCGGATCCAAACAACCCCTTCAGGAATCA 719
 Dog2 TAGCAATAGTACACCTCCTATTTCTACACGAAACCGGATCCAAACAACCCCTTCAGGAATCA 720

Dog4 CATCAGACTCAGACAAAAATTCATTTCACCCCTTACTACACAATCAAGGAATATCCTAGGAG 779
 Dog7 CATCAGACTCAGACAAAAATTCATTTCACCCCTTACTACACAATCAAGGAATATCCTAGGAG 779
 Dog3 CATCAGACTCAGACAAAAATTCATTTCACCCCTTACTACACAATCAAGGATATCCTAGGAG 779
 Dog8 CATCAGACTCAGACAAAAATTCATTTCACCCCTTACTACACAATCAAGGATATCCTAGGAG 779
 Dog5 CATCAGACTCAGACAAAAATTCATTTCACCCCTTACTACACAATCAAGGATATCCTAGGAG 776
 Dog6 CATCAGACTCAGACAAAAATTCATTTCACCCCTTACTACACAATCAAGGATATCCTAGGAG 776
 Dog10 CATCAGACTCAGACAAAAATTCATTTCACCCCTTACTACACAATCAAGGATATCCTAGGAG 779
 Dog9 CATCAGACTCAGACAAAAATTCATTTCACCCCTTACTACACAATCAAGGATATCCTAGGAG 779
 Dog1 CATCAGACTCAGACAAAAATTCATTTCACCCCTTACTACACAATCAAGGATATCCTAGGAG 779
 Dog2 CATCAGACTCAGACAAAAATTCATTTCACCCCTTACTACACAATCAAGGATATCCTAGGAG 780

Dog4 CCTTACTCCTACTCCTAATCCTAATATCACTAGTTTTATTTTCACCTGACCTATTAGGAG 839
 Dog7 CCTTACTCCTACTCCTAATCCTAATATCACTAGTTTTATTTTCACCTGACCTATTAGGAG 839
 Dog3 CCTTACTCCTACTCCTAATCCTAATATCACTAGTTTTATTTTCACCTGACCTATTAGGAG 839
 Dog8 CCTTACTCCTACTCCTAATCCTAATATCACTAGTTTTATTTTCACCTGACCTATTAGGAG 839
 Dog5 CCTTACTCCTACTCCTAATCCTAATATCACTAGTTTTATTTTCACCTGACCTATTAGGAG 836
 Dog6 CCTTACTCCTACTCCTAATCCTAATATCACTAGTTTTATTTTCACCTGACCTATTAGGAG 836
 Dog10 CCTTACTCCTACTCCTAATCCTAATATCACTAGTTTTATTTTCACCTGACCTATTAGGAG 839
 Dog9 CCTTACTCCTACTCCTAATCCTAATATCACTAGTTTTATTTTCACCTGACCTATTAGGAG 839
 Dog1 CCTTACTCCTACTCCTAATCCTAATATCACTAGTTTTATTTTCACCTGACCTATTAGGAG 839
 Dog2 CCTTACTCCTACTCCTAATCCTAATATCACTAGTTTTATTTTCACCTGACCTATTAGGAG 840

Dog4 ACCCAGATAACTACACCCCTGCAAAACCCCTTAAACACCCCTCCACATATTAAACCTGAGT 899
 Dog7 ACCCAGATAACTACACCCCTGCAAAACCCCTTAAACACCCCTCCACATATTAAACCTGAGT 899
 Dog3 ACCCAGATAACTACACCCCTGCAAAACCCCTTAAACACCCCTCCACATATTAAACCTGAGT 899
 Dog8 ACCCAGATAACTACACCCCTGCAAAACCCCTTAAACACCCCTCCACATATTAAACCTGAGT 899
 Dog5 ACCCAGATAACTACACCCCTGCAAAACCCCTTAAACACCCCTCCACATATTAAACCTGAGT 896
 Dog6 ACCCAGATAACTACACCCCTGCAAAACCCCTTAAACACCCCTCCACATATTAAACCTGAGT 896
 Dog10 ACCCAGATAACTACACCCCTGCAAAACCCCTTAAACACCCCTCCACATATTAAACCTGAGT 899
 Dog9 ACCCAGATAACTACACCCCTGCAAAACCCCTTAAACACCCCTCCACATATTAAACCTGAGT 899
 Dog1 ACCCAGATAACTACACCCCTGCAAAACCCCTTAAACACCCCTCCACATATTAAACCTGAGT 899
 Dog2 ACCCAGATAACTACACCCCTGCAAAACCCCTTAAACACCCCTCCACATATTAAACCTGAGT 900

Dog4 GGTATTTTCTATTTCGCCTATGCTATCCTACGATCCATTCCCTAATAAAATTAGGAGGTGTAC 959
 Dog7 GATATTTTCTATTTCGCCTATGCTATCCTACGATCCATTCCCTAATAAAATTAGGAGGTGTAC 959
 Dog3 GATATTTTCTATTTCGCCTATGCTATCCTACGATCCATTCCCTAATAAAATTAGGAGGTGTAC 959
 Dog8 GATATTTTCTATTTCGCCTATGCTATCCTACGATCCATTCCCTAATAAAATTAGGAGGTGTAC 959
 Dog5 GATATTTTCTATTTCGCCTATGCTATCCTACGATCCATTCCCTAATAAAATTAGGAGGTGTAC 956
 Dog6 GATATTTTCTATTTCGCCTATGCTATCCTACGATCCATTCCCTAATAAAATTAGGAGGTGTAC 956
 Dog10 GATATTTTCTATTTCGCCTATGCTATCCTACGATCCATTCCCTAATAAAATTAGGAGGTGTAC 959
 Dog9 GATATTTTCTATTTCGCCTATGCTATCCTACGATCCATTCCCTAATAAAATTAGGAGGTGTAC 959
 Dog1 GATATTTTCTATTTCGCCTATGCTATCCTACGATCCATTCCCTAATAAAATTAGGAGGTGTAC 959
 Dog2 GATATTTTCTATTTCGCCTATGCTATCCTACGATCCATTCCCTAATAAAATTAGGAGGTGTAC 960

Dog4	TCGCCCTAGTATTCTCCATCCTAATCTTGGCATTTCATTCCACTCCTCCACACATCTAAGC	1019
Dog7	TCGCCCTAGTATTCTCCATCCTAATCTTGGCATTTCATTCCACTCCTCCACACATCTAAGC	1019
Dog3	TCGCCCTAGTATTCTCCATCCTAATCTTGGCATTTCATTCCACTCCTCCACACATCTAAGC	1019
Dog8	TCGCCCTAGTATTCTCCATCCTAATCTTGGCATTTCATTCCACTCCTCCACACATCTAAGC	1019
Dog5	TCGCCCTAGTATTCTCCATCCTAATCTTGGCATTTCATTCCACTCCTCCACACATCTAAGC	1016
Dog6	TCGCCCTAGTATTCTCCATCCTAATCTTGGCATTTCATTCCACTCCTCCACACATCTAAGC	1016
Dog10	TCGCCCTAGTATTCTCCATCCTAATCTTGGCATTTCATTCCACTCCTCCACACATCTAAGC	1019
Dog9	TCGCCCTAGTATTCTCCATCCTAATCTTGGCATTTCATTCCACTCCTCCACACATCTAAGC	1019
Dog1	TCGCCCTAGTATTCTCCATCCTAATCTTGGCATTTCATTCCACTCCTCCACACATCTAAGC	1019
Dog2	TCGCCCTAGTATTCTCCATCCTAATCTTGGCATTTCATTCCACTCCTCCACACATCTAAGC	1020

Dog4	AACGCAGCATAAATATTCGGGCCCTTAGCCAATGCCTATTCTGACTTTTAGTCGCCGATC	1079
Dog7	AACGCAGCATAAATATTCGGGCCCTTAGCCAATGCCTATTCTGACTTTTAGTCGCCGATC	1079
Dog3	AACGCAGCATAAATATTCGGGCCCTTAGCCAATGCCTATTCTGACTTTTAGTCGCCGATC	1079
Dog8	AACGCAGCATAAATATTCGGGCCCTTAGCCAATGCCTATTCTGACTTTTAGTCGCCGATC	1079
Dog5	AACGCAGCATAAATATTCGGGCCCTTAGCCAATGCCTATTCTGACTTTTAGTCGCCGATC	1076
Dog6	AACGCAGCATAAATATTCGGGCCCTTAGCCAATGCCTATTCTGACTTTTAGTCGCCGATC	1076
Dog10	AACGCAGCATAAATATTCGGGCCCTTAGCCAATGCCTATTCTGACTTTTAGTCGCCGATC	1079
Dog9	AACGCAGCATAAATATTCGGGCCCTTAGCCAATGCCTATTCTGACTTTTAGTCGCCGATC	1079
Dog1	AACGCAGCATAAATATTCGGGCCCTTAGCCAATGCCTATTCTGACTTTTAGTCGCCGATC	1079
Dog2	AACGCAGCATAAATATTCGGGCCCTTAGCCAATGCCTATTCTGACTTTTAGTCGCCGATC	1080

Dog4	TTCTCACTTTAACATGAATTGGAGGACAACCAAGTTGAACACCCCTTTCATCATTTATCGGAC	1139
Dog7	TTCTCACTTTAACATGAATTGGAGGACAACCAAGTTGAACACCCCTTTCATCATTTATCGGAC	1139
Dog3	TTCTCACTTTAACATGAATTGGAGGACAACCAAGTTGAACACCCCTTTCATCATTTATCGGAC	1139
Dog8	TTCTCACTTTAACATGAATTGGAGGACAACCAAGTTGAACACCCCTTTCATCATTTATCGGAC	1139
Dog5	TTCTCACTTTAACATGAATTGGAGGACAACCAAGTTGAGCACCCCTTTCATCATTTATCGGAC	1136
Dog6	TTCTCACTTTAACATGAATTGGAGGACAACCAAGTTGAGCACCCCTTTCATCATTTATCGGAC	1136
Dog10	TTCTCACTTTAACATGAATTGGAGGACAACCAAGTTGAGCACCCCTTTCATCATTTATCGGAC	1139
Dog9	TTCTCACTTTAACATGAATTGGAGGACAACCAAGTTGAGCACCCCTTTCATCATTTATCGGAC	1139
Dog1	TTCTCACTTTAACATGAATTGGAGGACAACCAAGTTGAGCACCCCTTTCATCATTTATCGGAC	1139
Dog2	TTCTCACTTTAACATGAATTGGAGGACAACCAAGTTGAGCACCCCTTTCATCATTTATCGGAC	1140

Dog4	AAGTCGCTTCAATCTTATATTTACCATCTTATTGATCCTAATACCAACAGTTAGCGTTA	1199
Dog7	AAGTCGCTTCAATCTTATATTTACCATCTTATTGATCCTAATACCAACAGTTAGCGTTA	1199
Dog3	AAGTCGCTTCAATCTTATATTTACCATCTTATTGATCCTAATACCAACAGTTAGCGTTA	1199
Dog8	AAGTCGCTTCAATCTTATATTTACCATCTTATTGATCCTAATACCAACAGTTAGCGTTA	1199
Dog5	AAGTCGCTTCAATCTTATATTTACCATCTTATTGATCCTAATACCAACAGTTAGCGTTA	1196
Dog6	AAGTCGCTTCAATCTTATATTTACCATCTTATTGATCCTAATACCAACAGTTAGCGTTA	1196
Dog10	AAGTCGCTTCAATCTTATATTTACCATCTTATTGATCCTAATACCAACAGTTAGCGTTA	1199
Dog9	AAGTCGCTTCAATCTTATATTTACCATCTTATTGATCCTAATACCAACAGTTAGCGTTA	1199
Dog1	AAGTCGCTTCAATCTTATATTTACCATCTTATTGATCCTAATACCAACAATTAGCGTTA	1199
Dog2	AAGTCGCTTCAATCTTATATTTACCATCTTATTGATCCTAATACCAACAGTTAGCGTTA	1200

Dog4	TCGAAAACAACCTTCTAAAATGAAGAGTCTTTGTAGTATAATCATTACCTTGGTCTTGTA	1259
Dog7	TCGAAAACAACCTTCTAAAATGAAGAGTCTTTGTAGTATAATCATTACCTTGGTCTTGTA	1259
Dog3	TCGAAAACAACCTTCTAAAATGAAGAGTCTTTGTAGTATAATCATTACCTTGGTCTTGTA	1259
Dog8	TCGAAAACAACCTTCTAAAATGAAGAGTCTTTGTAGTATAATCATTACCTTGGTCTTGTA	1259
Dog5	TCGAAAACAACCTTCTAAAATGAAGAGTCTTTGTAGTATAATCATTACCTTGGTCTTGTA	1256
Dog6	TCGAAAACAACCTTCTAAAATGAAGAGTCTTTGTAGTATAATCATTACCTTGGTCTTGTA	1256
Dog10	TCGAAAACAACCTTCTAAAATGAAGAGTCTTTGTAGTATAATCATTACCTTGGTCTTGTA	1259
Dog9	TCGAAAACAACCTTCTAAAATGAAGAGTCTTTGTAGTATAATCATTACCTTGGTCTTGTA	1259
Dog1	TCGAAAACAACCTTCTAAAATGAAGAGTCTTTGTAGTATAATCATTACCTTGGTCTTGTA	1259
Dog2	TCGAAAACAACCTTCTAAAATGAAGAGTCTTTGTAGTATAATCATTACCTTGGTCTTGTA	1260

Fox Animal

Asseccion number

Fox 01	NC_008434
Fox 02	AM181037
Fox 03	DQ498127
Fox 04	DQ498124
Fox 05	AY928669
Fox 06	DQ498126
Fox 07	DQ498125

Fox3	-----	
Fox7	-----	
Fox6	-----	
Fox5	-----	
Fox1	TATGTTATCATTATTTCCACATGGAATTTAACCATGACTAATGACATGAAAAATCATCGT	60
Fox2	TATGTTATCATTATTTCCACATGGAATTTAACCATGACTAATGACATGAAAAATCATCGT	60
Fox4	-----	
Fox3	-----ATGACCAACATTTCGAAAGACTCACCCTAGCTAAA	36
Fox7	-----ATGACCAACATTTCGAAAGACTCACCCTAGCTAAA	36
Fox6	-----ATGACCAACATTTCGAAAGACTCACCCTAGCTAAA	36
Fox5	-----ATGACCAACATTTCGAAAGACTCACCCTAGCTAAA	36
Fox1	TGTATTTCAACTATAAGAACATTATGACCAACATTTCGAAAGACTCACCCTAGCTAAA	120
Fox2	TGTATTTCAACTATAAGAACATTATGACCAACATTTCGAAAGACTCACCCTAGCTAAA	120
Fox4	-----ATGACCAACATTTCGAAAGACTCACCCTAGCTAAA	36

Fox3	ATCGTCAACGACTCATTTCATCGACCTTCCCGCACCATCAAATATTTCTGCCTGATGGAAC	96
Fox7	ATCGTCAACGACTCATTTCATCGACCTTCCCGCACCATCAAATATTTCTGCCTGATGGAAC	96
Fox6	ATCGTCAACGACTCATTTCATCGACCTTCCCGCACCATCAAATATTTCTGCCTGATGGAAC	96
Fox5	ATCGTCAACGACTCATTTCATCGACCTTCCCGCACCATCAAATATTTCTGCCTGATGGAAC	96
Fox1	ATCGTAAACGACTCATTTCATCGACCTTCCCGCACCATCAAATATTTCTGCCTGATGGAAC	180
Fox2	ATCGTAAACGACTCATTTCATCGACCTTCCCGCACCATCAAATATTTCTGCCTGATGGAAC	180
Fox4	ATCGTCAACGACTCATTTCATCGACCTTCCCGCACCATCAAATATTTCTGCCTGATGGAAC	96

Fox3	TTCTGGGTCCCTGCTAGGCGTATGCCTTATTCTACAGATTGCAACAGGTCTATTTTTAGCC	156
Fox7	TTCTGGGTCCCTGCTAGGCGTATGCCTTATTCTACAGATTGCAACAGGTCTATTTTTAGCC	156
Fox6	TTCTGGGTCCCTGCTAGGCGTATGCCTTATTCTACAGATTGCAACAGGTCTATTTTTAGCC	156
Fox5	TTCTGGGTCCCTGCTAGGCGTATGCCTTATTCTACAGATTGCAACAGGTCTATTTTTAGCC	156
Fox1	TTCTGGGTCCCTGCTAGGCGTATGCCTTATTCTACAGATTGCAACAGGTCTATTTTTAGCC	240
Fox2	TTCTGGGTCCCTGCTAGGCGTATGCCTTATTCTACAGATTGCAACAGGTCTATTTTTAGCC	240
Fox4	TTCTGGGTCCCTGCTAGGCGTATGCCTTATTCTACAGATTGCAACAGGTCTATTTTTAGCC	156

Fox3	ATACACTATACATCTGACACAGCTACTGCTTTCTCATCTGTCACTCACATCTGCCGAGAC	216
Fox7	ATACACTATACATCTGACACAGCTACTGCTTTCTCATCTGTCACTCACATCTGCCGAGAC	216
Fox6	ATACACTATACATCTGACACAGCTACTGCTTTCTCATCTGTCACTCACATCTGCCGAGAC	216
Fox5	ATACACTATACATCTGACACAGCTACTGCTTTCTCATCTGTCACTCACATCTGCCGAGAC	216
Fox1	ATACACTATACATCTGACACAGCTACTGCTTTCTCATCTGTCACTCACATCTGCCGAGAC	300
Fox2	ATACACTATACATCTGACACAGCTACTGCTTTCTCATCTGTCACTCACATCTGCCGAGAC	300
Fox4	ATACACTATACATCTGACACAGCTACTGCTTTCTCATCTGTCACTCACATCTGCCGAGAC	216

Fox3	GTTAACTATGGCTGAATTATCCGCTACATACATGCAACCGGAGCATCTATATTTTTTATC	276
Fox7	GTTAACTATGGCTGAATTATCCGCTACATACATGCAACCGGAGCATCTATATTTTTTATC	276
Fox6	GTTAACTATGGCTGAATTATCCGCTACATACATGCAACCGGAGCATCTATATTTTTTATC	276
Fox5	GTTAACTATGGCTGAATTATCCGCTACATACATGCAACCGGAGCATCTATATTTTTTATC	276
Fox1	GTTAACTATGGCTGAATTATCCGCTACATACATGCAACCGGAGCATCTATATTTTTTATC	360
Fox2	GTTAACTATGGCTGAATTATCCGCTACATACATGCAACCGGAGCATCTATATTTTTTATC	360
Fox4	GTTAACTATGGCTGAATTATCCGCTACATACATGCAACCGGAGCATCTATATTTTTTATC	276

Fox3	TGCCTCTTCATGCACGTAGGACGAGGCTTATATTATGGATCTTATGTATTCATAGAAACA	336
Fox7	TGCCTCTTCATGCACGTAGGACGAGGCTTATATTATGGATCTTATGTATTCATAGAAACA	336
Fox6	TGCCTCTTCATGCACGTAGGACGAGGCTTATATTATGGATCTTATGTATTCATAGAAACA	336
Fox5	TGCCTCTTCATGCACGTAGGACGAGGCTTATATTATGGATCTTATGTATTCATAGAAACA	336
Fox1	TGCCTCTTCATGCACGTGGGACGAGGCTTATATTATGGATCTTATGTATTCATAGAAACA	420
Fox2	TGCCTCTTCATGCACGTGGGACGAGGCTTATATTATGGATCTTATGTATTCATAGAAACA	420
Fox4	TGCCTCTTCATGCACGTGGGACGAGGCTTATATTATGGATCTTATGTATTCATAGAAACA	336

Fox3	TGAAATATTGGAATTATCTTATTGTTTCGCAACCATGGCCACAGCATTTATGGGCTACGTT	396
Fox7	TGAAATATTGGAATTATCTTATTGTTTCGCAACCATGGCCACAGCATTTATGGGCTACGTT	396
Fox6	TGAAATATTGGAATTATCTTATTGTTTCGCAACCATGGCCACAGCATTTATGGGCTACGTT	396
Fox5	TGAAATATTGGAATTATCTTATTGTTTCGCAACCATGGCCACAGCATTTATGGGCTACGTT	396
Fox1	TGAAATATTGGAATTATCTTATTGTTTCGCAACCATGGCCACAGCATTTATGGGCTACGTT	480
Fox2	TGAAATATTGGAATTATCTTATTGTTTCGCAACCATGGCCACAGCATTTATGGGCTACGTT	480
Fox4	TGAAATATTGGAATTATCTTATTGTTTCGCAACCATGGCCACAGCATTTATGGGCTACGTT	396

Fox3	TTACCGTGAGGACAAATATCATTCTGAGGGGCACCGTAATTACAAATCTTCTATCTGCT	456
Fox7	TTACCGTGAGGACAAATATCATTCTGAGGGGCACCGTAATTACAAATCTTCTATCTGCT	456
Fox6	TTACCGTGAGGACAAATATCATTCTGAGGGGCACCGTAATTACAAATCTTCTATCTGCT	456
Fox5	TTACCGTGAGGACAAATATCATTCTGAGGGGCACCGTAATTACAAATCTTCTATCTGCT	456
Fox1	TTACCGTGAGGACAAATATCATTCTGAGGGGCACCGTAATTACAAATCTTCTATCTGCT	540
Fox2	TTACCGTGAGGACAAATATCATTCTGAGGGGCACCGTAATTACAAATCTTCTATCTGCT	540
Fox4	TTACCGTGAGGACAAATATCATTCTGAGGGGCACCGTAATTACAAATCTTCTATCTGCT	456

Fox3	ATCCCCATATCGGAACCGATCTAGTAGAGTGAAATTTGAGGGGCTTCTCAGTAGACAAA	516
Fox7	ATCCCCATATCGGAACCGATCTAGTAGAGTGAAATTTGAGGGGCTTCTCAGTAGACAAA	516
Fox6	ATCCCCATATCGGAACCGATCTAGTAGAGTGAAATTTGAGGGGCTTCTCAGTAGACAAA	516
Fox5	ATCCCCATATCGGAACCGATCTAGTAGAGTGAAATTTGAGGGGCTTCTCAGTAGACAAA	516
Fox1	ATCCCCATATCGGAACCGATCTAGTAGAGTGAAATTTGAGGGGCTTCTCAGTAGACAAA	600
Fox2	ATCCCCATATCGGAACCGATCTAGTAGAGTGAAATTTGAGGGGCTTCTCAGTAGACAAA	600
Fox4	ATCCCCATATCGGAACCGATCTAGTAGAGTGAAATTTGAGGGGCTTCTCAGTAGACAAA	516
** *****		
Fox3	GCAACCCTAACACGATTCTTTGCATTCCACTTTATCCTTCCATTTCATCATCGCAGCATTA	576
Fox7	GCAACCCTAACACGATTCTTTGCATTCCACTTTATCCTTCCATTTCATCATCGCAGCATTA	576
Fox6	GCAACCCTAACACGATTCTTTGCATTCCACTTTATCCTTCCATTTCATCATCGCAGCATTA	576
Fox5	GCAACCCTAACACGATTCTTTGCATTCCACTTTATCCTTCCATTTCATCATCGCAGCATTA	576
Fox1	GCAACCCTAACACGATTCTTTGCATTCCACTTTATCCTTCCATTTCATCATCGCAGCATTA	660
Fox2	GCAACCCTAACACGATTCTTTGCATTCCACTTTATCCTTCCATTTCATCATCGCAGCATTA	660
Fox4	GCAACCCTAACACGATTCTTTGCATTCCACTTTATCCTTCCATTTCATCATCGCAGCATTA	576

Fox3	GCGATGGTTCATCTCTTATTTCTCCACGAAACAGGATCCAACAACCCCTTCAGGAATCACA	636
Fox7	GCGATGGTTCATCTCTTATTTCTCCACGAAACAGGATCCAACAACCCCTTCAGGAATCACA	636
Fox6	GCGATGGTTCATCTCTTATTTCTCCACGAAACAGGATCCAACAACCCCTTCAGGAATCACA	636
Fox5	GCGATGGTTCATCTCTTATTTCTCCACGAAACAGGATCCAACAACCCCTTCAGGAATCACA	636
Fox1	GCGATGGTTCATCTCTTATTTCTCCACGAAACAGGATCCAACAATCCTTCAGGAATCACA	720
Fox2	GCGATGGTTCATCTCTTATTTCTCCACGAAACAGGATCCAACAATCCTTCAGGAATCACA	720
Fox4	GCGATGGTTCATCTCTTATTTCTCCACGAAACAGGATCCAACAACCCCTTCAGGAATCACA	636

Fox3	TCCGACTCAGACAAAATTCGGTTTCACCCCTACTACACAATTAAGACATCCTAGGAGTT	696
Fox7	TCCGACTCAGACAAAATTCGGTTTCACCCCTACTACACAATTAAGACATCCTAGGAGTT	696
Fox6	TCCGACTCAGACAAAATTCGGTTTCACCCCTACTACACAATTAAGACATCCTAGGAGTT	696
Fox5	TCCGACTCAGACAAAATTCGGTTTCACCCCTACTACACAATTAAGACATCCTAGGAGTT	696
Fox1	TCCGACTCAGACAAAATTCGGTTTCACCCCTACTACACAATTAAGACATCCTAGGAGTT	780
Fox2	TCCGACTCAGACAAAATTCGGTTTCACCCCTACTACACAATTAAGACATCCTAGGAGTT	780
Fox4	TCCGACTCAGACAAAATTCGGTTTCACCCCTACTACACAATTAAGACATCCTAGGAGTT	696

Fox3	TTACTTCTCTTTTCAGTTCTAATATCACTAGTCCTATTCTCACCAGATCTTTTAGGAGAC	756
Fox7	TTACTTCTCTTTTCAGTTCTAATATCACTAGTCCTATTCTCACCAGATCTTTTAGGAGAC	756
Fox6	TTACTTCTCTTTTCAGTTCTAATATCACTAGTCCTATTCTCACCAGATCTTTTAGGAGAC	756
Fox5	TTACTTCTCTTTTCAGTTCTAATATCACTAGTCCTATTCTCACCAGATCTTTTAGGAGAC	756
Fox1	TTACTTCTCTTTTCAGTTCTAATATCACTAGTCCTATTCTCACCAGATCTTTTAGGAGAC	840
Fox2	TTACTTCTCTTTTCAGTTCTAATATCACTAGTCCTATTCTCACCAGATCTTTTAGGAGAC	840
Fox4	TTACTTCTCTTTTCAGTTCTAATATCACTAGTCCTATTCTCACCAGATCTTTTAGGAGAC	756

Fox3	CCAGACAATTACACCCCGCAAAACCTCTCAGCACTCCCCACATATCAAACCCGAATGA	816
Fox7	CCAGACAATTACACCCCGCAAAACCTCTCAGCACTCCCCACATATCAAACCCGAATGA	816
Fox6	CCAGACAATTACACCCCGCAAAACCTCTCAGCACTCCCCACATATCAAACCCGAATGA	816
Fox5	CCAGACAATTACACCCCGCAAAACCTCTCAGCACTCCCCACATATCAAACCCGAATGA	816
Fox1	CCAGACAATTACACCCCGCAAAACCTCTCAGCACTCCCCACATATTAACCCGAATGA	900
Fox2	CCAGACAATTACACCCCGCAAAACCTCTCAGCACTCCCCACATATTAACCCGAATGA	900
Fox4	CCAGACAATTACACCCCGCAAAACCTCTCAGCACTCCCCACATATCAAACCCGAATGA	816

Fox3	TACTTCCTATTTGCCTATGCCATTCTCCGGTCCATCCCTAATAAACTAGGAGGAGTCCTA	876
Fox7	TACTTCCTATTTGCCTATGCCATTCTCCGGTCCATCCCTAATAAACTAGGAGGAGTCCTA	876
Fox6	TACTTCCTATTTGCCTATGCCATTCTCCGGTCCATCCCTAACAACTAGGAGGAGTCCTA	876
Fox5	TACTTCCTATTTGCCTATGCCATTCTCCGGTCCATCCCTAACAACTAGGAGGAGTCCTA	876
Fox1	TACTTTCTATTTGCCTATGCCATTCTCCGGTCCATCCCTAACAACTAGGAGGAGTCCTA	960
Fox2	TACTTTCTATTTGCCTATGCCATTCTCCGGTCCATCCCTAACAACTAGGAGGAGTCCTA	960
Fox4	TACTTCCTATTTGCCTATGCCATTCTCCGGTCCATCCCTAACAACTAGGAGGAGTCCTA	876

Fox3	GCCCTAGTGTTCCTCAATCCTAATCTTAGCACTTATCCCCACCTACACACCTCAAACAA	936
Fox7	GCCCTAGTGTTCCTCAATCCTAATCTTAGCACTTATCCCCACCTACACACCTCAAACAA	936
Fox6	GCCCTAGTGTTCCTCAATCCTAATCTTAGCACTTATCCCCACCTACACACCTCAAACAA	936
Fox5	GCCCTAGTGTTCCTCAATCCTAATCTTAGCACTTATCCCCACCTACACACCTCAAACAA	936
Fox1	GCCCTAGTGTTCCTCAATCCTAATCTTAGCACTTATCCCCACCTACACACCTCAAACAA	1020
Fox2	GCCCTAGTGTTCCTCAATCCTAATCTTAGCACTTATCCCCACCTACACACCTCAAACAA	1020
Fox4	GCCCTAGTGTTCCTCAATCCTAATCTTAGCACTTATCCCCACCTACACACCTCAAACAA	936

Fox3	CGTGGGATAAATATTCCGACCCCTTAGTCAATGCCTATTCTGACTTCTAACCAGACCTC	996
Fox7	CGTGGGATAAATATTCCGACCCCTTAGTCAATGCCTATTCTGACTTCTAACCAGACCTC	996
Fox6	CGTGGGATAAATATTCCGACCCCTTAGTCAATGCCTATTCTGACTTCTAACCAGACCTC	996
Fox5	CGTGGGATAAATATTCCGACCCCTTAGTCAATGCCTATTCTGACTTCTAACCAGACCTC	996
Fox1	CGTGGGATAAATATTCCGACCCCTTAGTCAATGCCTATTCTGACTTCTAACCAGACCTC	1080
Fox2	CGTGGGATAAATATTCCGACCCCTTAGTCAATGCCTATTCTGACTTCTAACCAGACCTC	1080
Fox4	CGTGGGATAAATATTCCGACCCCTTAGTCAATGCCTATTCTGACTTCTAACCAGACCTC	996

Fox3	CTCACCTTAACCTTGAATCGGAGGGCAGCCAGTAGAACACCCCTTTATCATCATTTGGCCAA	1056
Fox7	CTCACCTTAACCTTGAATCGGAGGGCAGCCAGTAGAACACCCCTTTATCATCATTTGGCCAA	1056
Fox6	CTCACCTTAACCTTGAATCGGAGGGCAGCCAGTAGAACACCCCTTTATCATCATTTGGCCAA	1056
Fox5	CTCACCTTAACCTTGAATCGGAGGGCAGCCAGTAGAACACCCCTTTATCATCATTTGGCCAA	1056
Fox1	CTCACCTTAACCTTGAATCGGAGGGCAGCCAGTAGAACACCCCTTTATCATCATTTGGCCAA	1140
Fox2	CTCACCTTAACCTTGAATCGGAGGGCAGCCAGTAGAACACCCCTTTATCATCATTTGGCCAA	1140
Fox4	CTCACCTTAACCTTGAATCGGAGGGCAGCCAGTAGAACACCCCTTTATCATCATTTGGTCAA	1056

Fox3	ATTGCCTCCATCCTGTATTTTGCTATCTTATTGATTCTAATGCCAACCATTAGCATTATC	1116
Fox7	ATTGCCTCCATCCTGTATTTTGCTATCTTATTGATTCTAATGCCAACCATTAGCATTATC	1116
Fox6	ATTGCCTCCATCCTGTATTTTGCTATCTTATTGATTCTAATGCCAACCATTAGCATTATC	1116
Fox5	ATTGCCTCCATCCTGTATTTTGCTATCTTATTGATTTTAATGCCAACCATTAGCATTATC	1116
Fox1	ATTGCCTCCATCCTGTATTTTGCTATCTTATTGATTCTAATGCCAACCATTAGCATTATC	1200
Fox2	ATTGCCTCCATCCTGTATTTTGCTATCTTATTGATTCTAATGCCAACCATTAGCATTATC	1200
Fox4	ATTGCCTCCATCCTGTATTTTGCTATCTTATTGATTCTAATGCCAACCATTAGCATTATC	1116

Fox3	GAAAACAATCTCCTAAAAATGAAGA-----	1140
Fox7	GAAAACAATCTCCTAAAAATGAAGA-----	1140
Fox6	GAAAACAATCTCCTAAAAATGAAGA-----	1140
Fox5	GAAAACAATCTCCTAAAAATGAAGA-----	1140
Fox1	GAAAACAATCTCCTAAAAATGAAGAGTCTTCGTAGTATATTAATTACATTGGTCTGTAAA	1260
Fox2	GAAAACAATCTCCTAAAAATGAAGAGTCTTCGTAGTATATTAATTACATTGGTCTGTAAA	1260
Fox4	GAAAACAATCTCCTAAAAATGAAGA-----	1140

Hedgehog 1
Hedgehog 2
Hedgehog 3
Hedgehog 4
Hedgehog 5
Hedgehog 6
Hedgehog 7
Hedgehog 8
Hedgehog 9
Hedgehog 10

NC_002080
X88898
AF379786
AF379781
AF379769
AF109073
AF051415
AF051411
AF051408
AF051405

1	AAATTATCATAAATCTTACACGAAAAATTTTCGCGGCCTATGATATGAAAAATCATTGTTG	60
2	AAATTATCATAAATCTTACACGAAAAATTTTCGCGGCCTATGATATGAAAAATCATTGTTG	60
9	-----	
10	-----	
5	-----	
8	-----	
4	-----	
6	-----	
7	-----	
3	-----	

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1      TAACTCAACTACAGAACTATGATAAATATACGAAAACTCATCCCTAATAAAAAATT 120
2      TAACTCAACTACAGAACTATGATAAATATACGAAAACTCATCCCTAATAAAAAATT 120
9      -----CCTAATAAAAAATT 13
10     -----CCTAATAAAAAATT 13
5      -----CCTAATAAAAAATT 13
8      -----CCTAATAAAAAATT 13
4      -----CCTAATAAAAAATT 13
6      -AACTCAACTACAGAACTATGATAAATATACGAAAACTCACCTCTAATAAAAAATT 59
7      -----TCTAATAAAAAATT 13
3      -----TCTAATAAAAAATT 13
          * * * * *

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1	ATTAAATAATCTTTTCATTGATTACCGACTCCATCTAATATTTCTTCTTGATGAAATTTT	180
2	ATTAAATAATCTTTTCATTGATTACCGACTCCATCTAATATTTCTTCTTGATGAAATTTT	180
3	ATTAAATAATCTTTTCATTGATTACCGACTCCATCTAATATTTCTTCTTGATGAAATTTT	73
10	ATTAAATAATCTTTTCATTGATTACCGACTCCATCTAATATTTCTTCTTGATGAAATTTT	73
5	ATTAAATAATCTTTTCATTGATTACCGACTCCATCTAATATTTCTTCTTGATGAAATTTT	73
8	ATTAAATAATCTTTTCATTGATTACCGACTCCATCTAATATTTCTTCTTGATGAAATTTT	73
4	ATTAAATAATCTTTTCATTGATTACCAACTCCAATCTAATATTTCTTCTTGATGAAATTTT	73
6	ATTAAATAATCTTTTATTTGATTACCAACTCCAATCTAATATTTCTTCTTGATGAAATTTT	119
7	ATTAAATAATCTTTTATTTGATTACCAACTCCAATCTAATATTTCTTCTTGATGAAATTTT	73
3	ATTAAATAATCTTTTATTTGATTACCAACCCCATCTAATATTTCTTCTTGATGAAATTTT	73
	***** *****	

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1      GGTTCATTACTAGGCCTATGCCTAATTACCCAGATTATTACAGGTTTATTTTAGCTATA 240
2      GGTTCATTACTAGGCCTATGCCTAATTACCCAGATTATTACAGGTTTATTTTAGCTATA 240
3      GGTTCATTACTAGGCCTATGCCTAATTACCCAGATTATTACAGGTTTATTTTAGCTATA 133
10     GGTTCATTACTAGGCCTATGCCTAATTACCCAGATTATTACAGGTTTATTTTAGCTATA 133
5      GGTTCATTACTAGGCCTATGCCTAATTACCCAGATTATTACAGGTTTACTTTTAGCTATA 133
8      GGTTCATTACTAGGCCTATGCCTAATTATCCAGATTATTACAGGTTTACTTTTAGCTATA 133
6      GGTTCATTACTAGGCCTATGCCTAATTAATCCAGATTATTACAGGTTTATTTTAGCTATA 133
4      GGTTCATTACTAGGCCTATGCCTAATAAATCCAGATTATTACAGGCTTATTTTAGCTATA 179
7      GGTTCATTACTAGGCCTATGCCTAATAAATCCAGATTATTACAGGCTTATTTTAGCTATA 133
3      GGTTCATTACTAGGCCTATGCCTAATAAATCCAGATTATTACAGGCTTATTTTAGCTATA 133
      *****

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1      CACTATACGTCAGATACACTTACAGCATTTTCATCCATTACTCACATTTGCCCAGATGTA 300
2      CACTATACGTCAGATACACTTACAGCATTTTCATCCATTACTCACATTTGCCCAGATGTA 300
9      CACTATACGTCAGATACACTTACAGCATTTTCATCCATTACTCACATTTGCCCAGATGTA 193
10     CACTATACGTCAGATACACTTACAGCATTTTCATCCATTACTCACATTTGCCCAGATGTA 193
5      CACTATACGTCAGATACACTTACAGCATTTTCATCCATTACTCACATTTGCCCAGATGTA 193
8      CATTATACGTCAGATACACTTACAGCATTTTCATCCATTACTCACATTTGCCCAGATGTA 193
4      CACTATATGTCAGATACACTTACAGCATTTTCATCCATTACTCACATTTGCCCAGATGTA 193
6      CACTATACATCAGACACACTTACAGCATTTTCATCCATTACTCATATTTGCCCAGATGTA 239
7      CACTATACATCAGACACACTTACAGCATTTTCATCCATTACTCATATTTGCCCAGATGTA 193
3      CACTACACATCAGATACACTTACAGCATTTTCATCCATTACTCATATTTGCCCAGATGTA 193
      **  **  *   *****  *****  *****  *****  *****

1      AACTACGGTTGGCTAATTCGTTATACACATGCCAATGGCGCCTCAATATTTTTTATGTGC 360
2      AACTACGGTTGGCTAATTCGTTATACACATGCCAATGGCGCCTCAATATTTTTTATGTGC 360
9      AACTACGGTTGGCTAATTCGTTATACACATGCCAATGGCGCCTCAATATTTTTTATGTGC 253
10     AACTACGGTTGGCTAATTCGTTATACACATGCCAATGGCGCCTCAATATTTTTTATGTGC 253
5      AACTACGGTTGGCTAATTCGTTATACACATGCCAATGGCGCCTCAATATTTTTTATGTGC 253
8      AACTACGGTTGGCTAATTCGTTATACACATGCCAATGGCGCCTCAATATTTTTTATGTGC 253
4      AACTACGGTTGGCTAATTCGTTATACACATGCCAATGGCGCCTCAATATTTTTTATGTGC 253
6      AATTACGGTTGACTAATCCGTTATACACACGCCAATGGCGCCTCAATATTTTTTATGTGC 299
7      AATTACGGTTGACTAATCCGTTATACACACGCCAATGGCGCCTCAATATTTTTTATGTGC 253
3      AATTACGGTTGACTAATCCGTTATACACACGCCAATGGCGCCTCAATATTTTTTATGTGC 253
      **  *****  *****  *****  *****  *****

1      CTATTTTTACATATCGGCCGAGGCCCTTTATTACGGATCATACTTATTTTTATGAAACATGA 420
2      CTATTTTTACATATCGGCCGAGGCCCTTTATTACGGATCATACTTATTTTTATGAAACATGA 420
9      CTATTTTTACATATCGGCCGAGGCCCTTTATTACGGATCATACTTATTTTTATGAAACATGA 313
10     CTATTTTTACATATCGGCCGAGGCCCTTTATTACGGATCATACTTATTTTTATGAAACATGA 313
5      CTATTTTTACATATCGGCCGAGGCCCTTTATTACGGATCATACTTATTTTTACGAAACATGA 313
8      CTATTTTTACATATCGGCCGAGGCCCTTTATTACGGATCATACTTATTTTTATGAAACATGA 313
4      CTATTTTTACATATCGGCCGAGGCCCTTTATTATGGATCATACTTATTTTTATGAAACATGA 313
6      CTATTTTTACATATCGGCCGAGGCCCTTTATTACGGATCATACTTATTTTTATGAGACATGA 359
7      CTATTTTTACATATCGGCCGAGGCCCTTTATTACGGATCATACTTATTTTTATGAGACATGA 313
3      CTATTTTTACATATCGGCCGAGGCCCTTTATTACGGATCATACTTATTTTTATGAGACATGA 313
      *****  *****  *****  *****  **  *****

1      AATATTGGAATTATTTTACTAATTATTACTATGGCTACAGCTTTTATGGGTTACGTCCTA 480
2      AATATTGGAATTATTTTACTAATTATTACTATGGCTACAGCTTTTATGGGTTACGTCCTA 480
9      AATATTGGAATTATTTTACTAATTATTACTATGGCTACAGCTTTTATGGGTTACGTCCTA 373
10     AATATTGGAATTATTTTACTAATTATTACTATGGCTACAGCTTTTATGGGTTACGTCCTA 373
5      AATATTGGAATTATTTTACTAATTATTACTATGGCTACAGCTTTTATGGGTTACGTCCTA 373
8      AATATTGGAATTATTTTACTAATTATTACTATGGCTACAGCTTTTATGGGTTACGTCCTA 373
4      AATATTGGAATTATTTTACTAATTATTACTTTGGCTACAGCTTTTATGGGTTACGTCCTA 373
6      AATATTGGAATTATCCTACTAATTGTTACTATAGCTACAGCTTTTATGGGTTACGTTCTA 419
7      AATATTGGAATTATCCTACTAATTGTTACTATAGCTACAGCTTTTATGGGTTACGTTCTA 373
3      AATATTGGAATTATCCTACTAATTATTACTATAGCTACAGCTTTTATAGGTTACGTCCTA 373
      *****  *****  *****  *  *****  **  *****  ***

1      CCATGAGGTCAAATATCATTTCTGAGGCGCTACAGTCATTACTAATCTATTATCTGCTATC 540
2      CCATGAGGTCAAATATCATTTCTGAGGCGCTACAGTCATTACTAATCTATTATCTGCTATC 540
9      CCATGAGGAC----- 383
10     CCATGAGGAC----- 383
5      CCATGAGGAC----- 383
8      CCATGAGGAC----- 383
4      CCATGAGGAC----- 383
6      CCA----- 422
7      CCATGAGGAC----- 383
3      CCATGAGGAC----- 383
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Rat

Animal

Rat 1

Rat 2

Rat 3

Rat 4

Rat 5

Strain

BN/SsNHsdMCW

F344 x BN F1

Wistar

N/A

Wild Caught

Accession Number

AY172581

AY769440

AC_000022

NC_001665

AJ428514

Rat1	AAATCATCGTTGTAATTCAACTATAGAAACATCTAATGACAAACATCCGAAAAATCTCACC	60
Rat4	AAATCATCGTTGTAATTCAACTATAGAAACATCTAATGACAAACATCCGAAAAATCTCACC	60
Rat5	---TCATCGTTGTAATTCAACTATAGAAACATCTAATGACAAACATCCGAAAAATCTCACC	57
Rat2	---CATCGTTGTAATTCAACTATAGAAACATCTAATGACAAACATCCGAAAAATCTCACC	56
Rat3	-----TAATTCAACTATAGAAACATCTAATGACAAACATCCGAAAAATCTCACC	48

Rat1	CCCTATTCAAATCATCAACCACTCCTTTATCGACCTCCCCGCCCATCTAACATCTCAT	120
Rat4	CCCTATTCAAATCATCAACCACTCCTTTATCGACCTCCCCGCCCATCTAACATCTCAT	120
Rat5	CCCTATTCAAATCATCAACCACTCCTTTATCGACCTCCCCGCCCATCTAACATCTCAT	117
Rat2	CCCTATTCAAATCATCAACCACTCCTTTATCGACCTCCCCGCCCATCTAACATCTCAT	116
Rat3	CCCTATTCAAATCATCAACCACTCCTTTATCGACCTACCGGCCCATCTAACATCTCAT	108

Rat1	CATGATGAAACTTCGGTTCTCTACTAGGAGTATGCCTCATAGTACAAATCCTCACAGGCT	180
Rat4	CATGATGAAACTTCGGTTCTCTACTAGGAGTATGCCTCATAGTACAAATCCTCACAGGCT	180
Rat5	CATGATGAAACTTCGGTTCTCTACTAGGAGTATGCCTCATAGTACAAATCCTCACAGGCT	177
Rat2	CATGATGAAACTTCGGTTCTCTACTAGGAGTATGCCTCATAGTACAAATCCTCACAGGCT	176
Rat3	CATGATGAAACTTCGGTTCTCTACTAGGAGTATGCCTCATAGTACAAATCCTCACAGGCT	168

Rat1	TATTCCTAGCAATACACTACACGCTCTGATACCATAACAGCATTTCATCAGTCACCCACA	240
Rat4	TATTCCTAGCAATACACTACACGCTCTGATACCATAACAGCATTTCATCAGTCACCCACA	240
Rat5	TATTCCTAGCAATACACTACACGCTCTGATACCATAACAGCATTTCATCAGTCACCCACA	237
Rat2	TATTCCTAGCAATACACTACACGCTCTGATACCATAACAGCATTTCATCAGTCACCCACA	236
Rat3	TATTCCTAGCAATACACTACACGCTCTGATACCATAACAGCATTTCATCAGTCACCCACA	228

Rat1	TCTGCCGAGACGTAAACTACGGCTGACTAATCCGATACCTACAGCCAAACGGCGCCTCAA	300
Rat4	TCTGCCGAGACGTAAACTACGGCTGACTAATCCGATACCTACAGCCAAACGGCGCCTCAA	300
Rat5	TCTGCCGAGACGTAAACTACGGCTGACTAATCCGATACCTACAGCCAAACGGCGCCTCAA	297
Rat2	TCTGCCGAGACGTAAACTACGGCTGACTAATCCGATACCTACAGCCAAACGGCGCCTCAA	296
Rat3	TCTGCCGAGACGTAAACTACGGCTGACTAATCCGATACCTACAGCCAAACGGCGCCTCAA	288

Rat1	TATTTTTCATCTGCCTATTCCCTCCATGTGGGACGAGGACTATACTATGGATCCTACACTT	360
Rat4	TATTTTTCATCTGCCTATTCCCTCCATGTGGGACGAGGACTATACTATGGATCCTACACTT	360
Rat5	TATTTTTCATCTGCCTATTCCCTCCATGTGGGACGAGGACTATACTATGGATCCTACACTT	357
Rat2	TATTTTTCATCTGCCTATTCCCTCCATGTGGGACGAGGACTATACTATGGATCCTACACTT	356
Rat3	TATTTTTCATCTGCCTATTCCCTCCATGTGGGACGAGGACTATACTATGGATCCTACACTT	348

Rat1	TCCTAGAAACCTGAAACATTGGGATCATCTACTATTGTCAGTCATAGCAACTGCATTCA	420
Rat4	TCCTAGAAACCTGAAACATTGGGATCATCTACTATTGTCAGTCATAGCAACTGCATTCA	420
Rat5	TCCTAGAAACCTGAAACATTGGGATCATCTACTATTGTCAGTCATAGCAACTGCATTCA	417
Rat2	TCCTAGAAACCTGAAACATTGGGATCATCTACTATTGTCAGTCATAGCAACTGCATTCA	416
Rat3	TCCTAGAAACCTGAAACATTGGGATCATCTACTATTGTCAGTCATAGCAACTGCATTCA	408

Rat1	TGGGCTATGTACTCCCATGAGGACAAATATCATTTCTGAGGAGCTACAGTAATTACAAACC	480
Rat4	TGGGCTATGTACTCCCATGAGGACAAATATCATTTCTGAGGAGCTACAGTAATTACAAACC	480
Rat5	TGGGCTATGTACTCCCATGAGGACAAATATCATTTCTGAGGAGCTACAGTAATTACAAACC	477
Rat2	TGGGCTATGTACTCCCATGAGGACAAATATCATTTCTGAGGAGCTACAGTAATTACAAACC	476
Rat3	TGGGCTATGTACTCCCATGAGGACAAATATCATTTCTGAGGAGCTACAGTAATTACAAACC	468

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Rat1      TATTATCTGCTATCCCTTACATTGGGACTACCCTAGTCGAATGAATCTGAGGAGGCTTCT 540
Rat4      TATTATCTGCTATCCCTTACATTGGGACTACCCTAGTCGAATGAATCTGAGGAGGCTTCT 540
Rat5      TATTATCAGCTATCCCTTACATTGGGACTACCCTAGTCGAATGAATCTGAGGAGGCTTCT 537
Rat2      TATTATCAGCTATCCCTTACATTGGGACTACCCTAGTCGAATGAATCTGAGGAGGCTTCT 536
Rat3      TATTATCAGCTATCCCTTACATTGGGACTACCCTAGTCGAATGAATCTGAGGAGGCTTCT 528
          *****

Rat1      CAGTAGACAAAGCAACCCTAACACGCTTCTTCGCATTCCACTTCATCCTCCCATTTCATTA 600
Rat4      CAGTAGACAAAGCAACCCTAACACGCTTCTTCGCATTCCACTTCATCCTCCCATTTCATTA 600
Rat5      CAGTAGACAAAGCAACCCTAACACGCTTCTTCGCATTCCACTTCATCCTCCCATTTCATTA 597
Rat2      CAGTAGACAAAGCAACCCTAACACGCTTCTTCGCATTCCACTTCATCCTCCCATTTCATTA 596
Rat3      CAGTAGACAAAGCAACCCTAACACGCTTCTTCGCATTCCACTTCATCCTCCCATTTCATTA 588
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Rat1      TCGCCGCCCTTGCAATTGTACATCTTCTTTTCCTCCACGAAACAGGATCAAATAACCCCA 660
Rat4      TCGCCGCCCTTGCAATTGTACATCTTCTTTTCCTCCACGAAACAGGATCAAATAACCCCA 660
Rat5      TCGCCGCCCTTGCAATTGTACATCTTCTTTTCCTCCACGAAACAGGATCAAATAACCCCA 657
Rat2      TCGCCGCCCTTGCAATTGTACATCTTCTTTTCCTCCACGAAACAGGATCAAATAACCCCA 656
Rat3      TCGCCGCCCTTGCAATTGTACATCTTCTTTTCCTCCACGAAACAGGATCAAATAACCCCA 648
          *****

Rat1      CAGGATTAAACTCCGACGCAGACAAAATCCCATTCATCCATATTATACAATTAAAGACC 720
Rat4      CAGGATTAAACTCCGACGCAGACAAAATCCCATTCATCCATATTATACAATTAAAGACC 720
Rat5      CAGGATTAAACTCCGACGCAGACAAAATCCCATTCATCCATATTATACAATTAAAGACC 717
Rat2      CAGGATTAAACTCCGACGCAGACAAAATCCCATTCATCCATATTATACAATTAAAGACC 716
Rat3      CAGGATTAAACTCCGACGCAGACAAAATCCCATTCATCCATATTATACAATTAAAGACC 708
          *****

Rat1      TCCTAGGTGTATTTATATTACTATTATTCCTAATAACCCCTAGTACTATTCTTCCCAGACC 780
Rat4      TCCTAGGTGTATTTATATTACTATTATTCCTAATAACCCCTAGTACTATTCTTCCCAGACC 780
Rat5      TCCTAGGTGTATTTATATTACTATTATTCCTAATAACCCCTAGTACTATTCTTCCCAGACC 777
Rat2      TCCTAGGTGTATTTATATTACTATTATTCCTAATAACCCCTAGTACTATTCTTCCCAGACC 776
Rat3      TCCTAGGTGTATTTATATTACTATTATTCCTAATAACCCCTAGTACTATTCTTCCCAGACC 768
          *****

Rat1      TACTAGGAGACCCAGACAATTATACACCCGCTAACCCCTCAACACCCCAACCCACATCA 840
Rat4      TACTAGGAGACCCAGACAATTATACACCCGCTAACCCCTCAACACCCCAACCCACATCA 840
Rat5      TACTAGGAGACCCAGACAATTATACGCGCGCTAACCCCTCAACACCCCAACCCACATCA 837
Rat2      TACTAGGAGACCCAGACAATTATACACCCGCTAACCCCTCAACACCCCAACCCACATCA 836
Rat3      TACTAGGAGACCCAGACAATTATACACCCGCTAACCCCTCAACACCCCAACCCACATCA 828
          *****

Rat1      AACCAGAAATGATATTTTCTCTTTGCCTACGCTATTCTACGCTCCATTCCCAACAAACTAG 900
Rat4      AACCAGAAATGATATTTTCTCTTTGCCTACGCTATTCTACGCTCCATTCCCAACAAACTAG 900
Rat5      AACCAGAAATGATATTTTCTCTTTGCCTACGCTATTCTACGCTCCATTCCCAACAAACTAG 897
Rat2      AACCAGAAATGATATTTTCTCTTTGCCTACGCTATTCTACGCTCCATTCCCAACAAACTAG 896
Rat3      AACCAGAAATGATATTTTCTCTTTGCCTACGCTATTCTACGCTCCATTCCCAACAAACTAG 888
          *****

Rat1      GAGGAGTCGTAGCCCTAATCTTATCAATCCTAATCTTAGCCTTCCTACCATTCCTGCATA 960
Rat4      GAGGAGTCGTAGCCCTAATCTTATCAATCCTAATCTTAGCCTTCCTACCATTCCTGCATA 960
Rat5      GAGGAGTCGTAGCCCTAATCTTATCAATCCTAATCTTAGCCTTCCTACCATTCCTGCATA 957
Rat2      GAGGGGTCGTAGCCCTAATCTTATCAATCCTAATCTTAGCCTTCCTACCATTCCTGCATA 956
Rat3      GAGGGGTCGTAGCCCTAATCTTATCAATCCTAATCTTAGCCTTCCTACCATTCCTGCATA 948
          *****

Rat1      CTTCAAAACAACGCAGCTTAACATTCCGCCCAATCACCCTAAATCCTTTACTGAATCCTAG 1020
Rat4      CTTCAAAACAACGCAGCTTAACATTCCGCCCAATCACCCTAAATCCTTTACTGAATCCTAG 1020
Rat5      CTTCAAAACAACGCAGCTTAACATTCCGCCCAATCACCCTAAATCCTTTACTGAATCCTAG 1017
Rat2      CCTCAAAACAACGCAGCTTAACATTCCGCCCAATCACCCTAAATCCTTTACTGAATCCTAG 1016
Rat3      CCTCAAAACAACGCAGCTTAACATTCCGCCCAATCACCCTAAATCCTTTACTGAATCCTAG 1008
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Rat1      TAGCCAACTCCTAATCTTAACATGAATCGGAGGCCAACCCAGTAGAACACCCATTTATCA 1080
Rat4      TAGCCAACTCCTAATCTTAACATGAATCGGAGGCCAACCCAGTAGAACACCCATTTATCA 1080
Rat5      TAGCCAACTCCTAGTCTTAACATGAATCGGAGGCCAACCCAGTAGAACACCCATTTATCA 1077
Rat2      TAGCCAACTCCTAGTCTTAACATGAATCGGAGGCCAACCCAGTAGAACACCCATTTATCA 1076
Rat3      TAGCCAACTCCTAGTCTTAACATGAATCGGAGGCCAACCCAGTAGAACACCCATTTATCA 1068
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Rat1	TTATTGGCCAACTAGCCTCCATCAGCTACTTTTCAATTATCCTCATTCTCATACCAATCT	1140
Rat4	TTATTGGCCAACTAGCCTCCATCAGCTACTTTTCAATTATCCTCATTCTCATACCAATCT	1140
Rat5	TTATTGGCCAACTAGCCTCCATCAGCTACTTTTCAATTATCCTCATTCTCATACCAATCT	1137
Rat2	TTATTGGTCAACTAGCCTCCATCAGCTATTTTTCATTATCCTCATTCTCATACCAATCT	1136
Rat3	TTATTGGTCAACTAGCCTCCATCAGTTATTTTTCATTATCCTCATTCTCATACCAATCT	1128

Rat1	CTGGAATTGTTGAAGACAAAATGTTAAATGAAATTAATGTCCCGATAGTATAAAAATTA	1200
Rat4	CTGGAATTGTTGAAGACAAAATGTTAAATGAAATTAATGTCCCGATAGTATAAAAATTA	1200
Rat5	CTGGAATTGTTGAAGACAAAATGTTAAATGAAATTAATGTCCCGATAGTATAAAAATTA	1197
Rat2	CTGGAATTGTTGAAGACAAAATGTTAAATGAAATTAATGTCCCGATAGTATAAAAATTA	1196
Rat3	CTGGAATTGTTGAAGACAAAATGTTAAATGAAATTAATGTCCCGATAGTATAAAAATTA	1188
