

ttc29^{RR}

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Human_TTC29 1 TTATAGGAACCTCTACAAGAAGAATATCTGTGTGGACATGCTGGAG-ATGGT 52
Mouse 1 CCACAGGAACCTCATACAAGAAGAGCATCTGCTGGACATGCTGGAG-ATGGG 52
Chicken 1 TAACAGGAATCATACAAGGAAGACATCTGCATAGACATGCTGGAG-AGGGT 52
Xenopus 1 ATATAGGAATTCACCTTAAGAATAATATCTGCATAGACATGCTGGAG-AGGGC 52
Ciona_savignyi 1 GTATCTGAACCTCATACAACAACAACATCTGTGTGGAAATGCTCAAGG-AAGGA 52
Medaka_RR 1 AAAT--TAAA-CAAGGCAAAACGACATCTGTGTGTGATGCTGGTGTATGG 50

Human_TTC29 53 TATCAT---AAGTCTTCAECGAG-CTCTTTCGCTCTGATGGAG-EGGTGGAT 100
Mouse 53 TTCCAC---AAGTCTTCAECGAG-CTCTTTCGCTCTGATGGAA-CAGTGGAT 100
Chicken 53 TATCAC---AAGTCTTTCGCGAG-CTCTTTCACCTCTGATACAG-AAGTGGAA 100
Xenopus 53 TATCAC---AAGTCTTTCGAGAA-GTATATACCTGTGATCGAG-AGGTGGAC 100
Ciona_savignyi 53 TTCCAC---AAATGTTTGTATGAA-CTTTTCAACTTAATCGAA-CAAAGAAA 100
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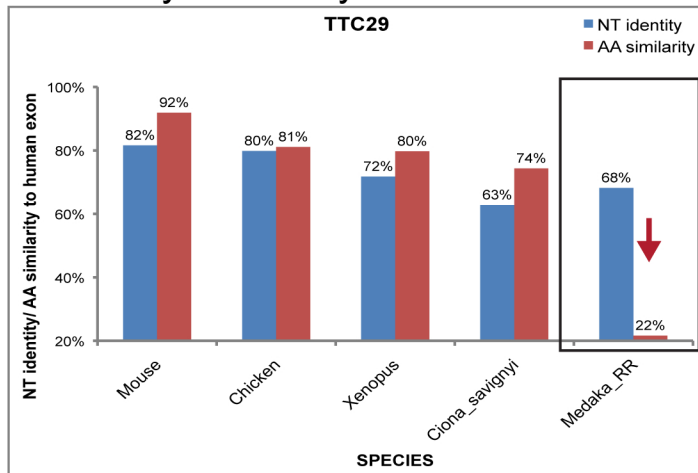
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Mouse 101 AAGCTCCGGGAAGCTCGGAAGGCAAGTCCCTCTTCTGGCAGCAGAGGCCCT 153
Chicken 101 GCCCTGAGGGAGGCTCGAGGGCTGGGTCAAGCAATATGCCAGGCCAGTCCCT 153
Xenopus 101 GCCCTGAGGGATGCTCGAGGGCTGGGTCAAGCAATATGGCATCAGAAAGCCCT 153
Ciona_savignyi 101 AAGCACGACTAGATGCCGGAATGGACTCTGTCTATGGGATGAGAAAGCCTT 153
Medaka_RR 104 CCCC TG-GGGAGGCTGAGGACTGGTCAAGCATATGGTGTGAAAGCCCC 155

Human_TTC29 154 GGAGGAGCA-GCCTGATAAAGTGGATTACTGTACCATACCTGAGCAGGGGT 205
Mouse 154 GGAGGAGCA-GCAGGACAGCTAGACAATTTCTACCACTACCTGAGCAGGGCC 205
Chicken 154 GGAGGAGCA-GCCTGATAAGCTGGATCAGCTTACCACTTCTGAGCAGGGGT 205
Xenopus 154 GGAAGAGCA-GCAGGAAAACTGGATCAACTTCAACATTTCTGAGCAGGGCT 205
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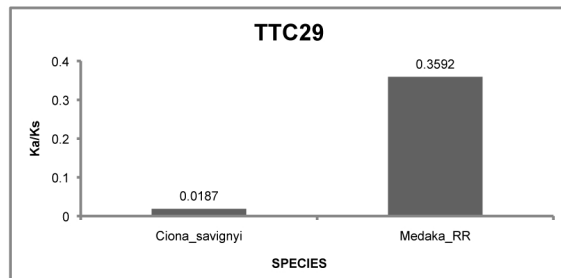
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Mouse 206 GAGGCTCGCCAGAGGAAAG 224
Chicken 206 GAGGACGCCAGAGAGCAG 224
Xenopus 206 GAGGAGCCCAAGAGCAG 224
Ciona_savignyi 206 GAGCTGCACTGAGAGTTT 224
Medaka_RR 208 ATGGATGC--ACACCAAA 224
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> reference: human exon on chr4:147830178-147830401:-1, GRCh37

% identity / similarity to human exon



Ka/Ks to human exon



dock9^{RR}

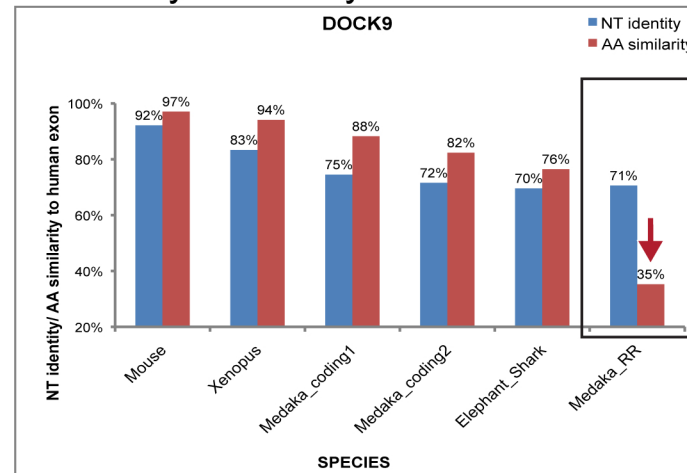
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Mouse 1 TCGAGGGAG---ACT-----CGGAAGTTCACCCG-GG--CTTTGAGC 36
Xenopus 1 CACCCAGAG---ACT-----CGGAAGTTCACCCG-GG--CGCTGAGC 36
Medaka_coding1 1 CAGCCGGAG---AC-----AGGAAATTCACCAAG-AG--TTTTGAGT 36
Medaka_coding2 1 GCACCTGAG---CA-----CGGAATTCACCCG-GG--GGCTCAAC 36
Elephant_Shark 1 ATGTCGAA---GTG-----CGGAAATTCACCAA-AC--GGCTCAGC 36
Medaka_RR 1 CAGGGTTAGGCCACTTCTCTCTTCCAGAAAGGCCCCCAAGGTAACCTTCATT 50

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Mouse 37 AAGCCGGGACGGCG-GCGGAGCTGCGGCA-GAGC--GTGCTGAGGTGG 82
Xenopus 37 AAGCCGGGACGGCG-GCGGAGCTGCGGCA-GAGT--GTATGAGGTGG 82
Medaka_coding1 37 AAACCTGGAACGGCG-GCTGAGCTCAGGCA-GAGC--GTCTCCGAGGTGG 82
Medaka_coding2 37 AAGCCGGGACGGCG-GCGGAGCTGAGGCA-GAGC--GTTTCCGAGGCG 82
Elephant_Shark 37 AAATTCGGCACTGCT-GCGGAGCTGAGGCA-GAGC--GCTTCCGAGGCG 82
Medaka_RR 51 AAGCCAGCCCCTTGTGCGGAGAGCAGCTGCGGAGGAGGAGGA 100

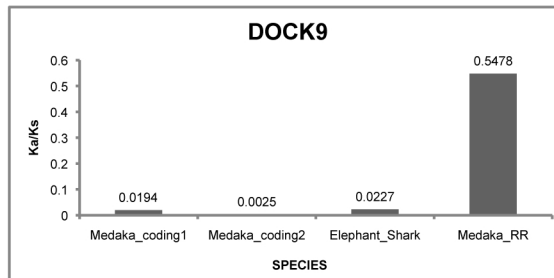
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Mouse 83 TCGCGGCTCGGTGCTCTG 102
Xenopus 83 TCGCGGCTCGGTGCTCTG 102
Medaka_coding1 83 TGAGGACCTCGGTGCTCTG 102
Medaka_coding2 83 TCAGGACCTCGGTGCTCTG 102
Elephant_Shark 83 TCAGGAACTCGGTGCTCTG 102
Medaka_RR 101 GCGCGGCTCTCGG-CTG 119
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> reference: human exon on chr13:99738477-99738578:-1, GRCh37

% identity / similarity to human exon



Ka/Ks to human exon



ccdc46^{RR}

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Mouse 1 ATAGTAGAGCTGAAGCTGGAGCATGAACAGGAGAAGACGCACCTATTACA 50
Chicken 1 ATAGTGGAGCTGAAGCTGGAGCATGAACAGGAGAAGACGCACCTATTCCA 50
Xenopus 1 ATGGTGGAGCTGAAGCTGGAGCATGAACAGGAGAAGACGCACCTTTTCCA 50
Medaka_coding 1 ATAGTGGAGCTGAAGCTGGAGCATGAACAGGAGAAGACGCACCTATTCCA 50
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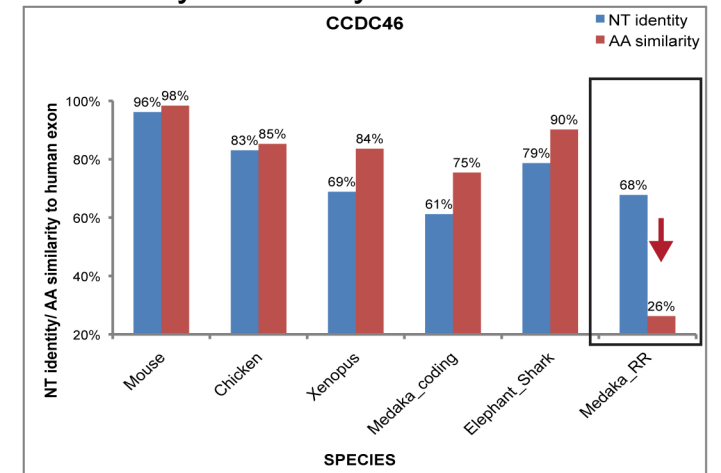
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Mouse 51 GCAGCACAGCGGAGAGA-AGGATA-GCCTAGTCCGAGACATGATCCGGGA 98
Chicken 51 GCAGCACAGCGGAGAGA-AGGACT-GCCTGGTCCGAGACACGAAACGGGA 98
Xenopus 51 GCAGCACAGCAACGAGA-AGGAAA-GCATCAITCAAGGAAACAGAAAAGGA 98
Medaka_coding 51 ACAGCACAAAGGGAAA-AGGACA-CCATGGTCCGAGAAACACGACGGGA 98
Elephant_Shark 51 GCAGCACAGCGGAGAGA-AGGACA-GCCTGGTCCGAGACACGAAACGGGA 98
Medaka_RR 51 CTTGCACAAATGTTGTGAGAGGATAGCGAAAATCTGTAGCACACGGGA 100

Human_CCDC46 99 AATTGA-AAACCTGGAAAAAG-C-CTTCGGCTGCCAATATGGAGCAGCA 146
Mouse 99 AATTGA-AAACCTGGAAAAAG-C-CTTCGGCTGCCAATATGGAGCAGCA 146
Chicken 99 AATCGA-GAAGCTGGAGAAAGC-ACTCCGGCTGCCATGGCAGAGCAGCA 146
Xenopus 99 AATCGA-TAGCTGGAGAAAGC-CTTCGGCTGCCATGGCAGAGCAGCA 146
Medaka_coding 99 GGTGAG-CGGCTGGAGAAAGC-C-CCAGGGCTGCCATGGCAGAGCAGCA 146
Elephant_Shark 99 AATCGA-CAACTCGAGAAAGC-CTTCGGCTGCCATAGTGGAGCAGCA 146
Medaka_RR 101 AATTGGCAATCCGGGAGGTTGTAAACGGGCGCCG---TGGT--TCGA 145

Human_CCDC46 147 AAATCAA-ATTCAA--GGAGTTC-AAG-AAAAGAGATGGACAG 183
Mouse 147 AAATCAA-ATTCAA--AGAGTCC-AAG-AAAAGAGATGGTACAG 183
Chicken 147 GAGC-AGA-ACTCAA--GGAGTTC-AGG-AAGCGAGACGGCCAG 183
Xenopus 147 GCGC-AAG-ACCETA--GGCTGG-AGG-CAGCGAGACGGCCAG 183
Medaka_coding 147 GCAG-CAC-TCCGAA--GGAATGG-AGG-AAGCGCATGCCAG 183
Elephant_Shark 147 AAAC-CAG-ACCAG--GCAACTG-AGG-AAGGAAGACACTCAG 183
Medaka_RR 146 CAATGCAC-AAAAGCGGGGTGGAGAAAAGAGCTGC-CAG 186
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> reference: human exon on chr17:63898270-63898452:-1, GRCh37

% identity / similarity to human exon



Ka/Ks to human exon

