

>uHMXcne_Xenopus

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CGAT-----
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AGCAGCTA-----CACTCTGG
AAATGACACAATTATCAAACACATTTTTGCCTGAAA---CAAGTAAACC-----
-----AACTAGTGA
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CCAACCCTGCAAT-----CCACCTCTATATATGGACCTGCATGA-CTTGC
CCCATCTCTGATGT-CACAAAGGG-----GGCGG
GGCAGGCA-----CACCTGTAAATAG
AGGCTGCAGGAGCGGATAGCAAGGG-----GTAGTAGGGCA-----ACTCG
CTCACAAACTGCA-AATCTTGTGCAAATCTCGGCCACATGTGTTTCAGGCCGGCGGGTTA
TGAAAAAACATTTG-----GGTTTAAAATAAAAAGGGCACCTTTTGGGCTTTGTGC
ATTG-----CACTTGC---AATTGGAAATGAACCCTCT-----
-----AGTGT-----TGGATATAATATGAGACTTCTGTCTTTCACCCCATGCAAGTTGC
CCCCTG-----ATCTTCCTTTCTGG-----GGGAGGG-----CTATAA
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AA---GCTCCTCAACAATCCTGGCC-----
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-CTCCTCTCTCTGCTGCTCTCGG-TGCAATTTGTAACCTGGCCCATATCTATATCTTAGC
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CACA-----AGGTGTTTAGACAGATGGACAATGCC-----
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CCAATAAGGGG-----TAATTATATCTTAGTTGGGATCAAGTA-----
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TTAA-----GGGAGAGGAG-----
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-----CAGGAAGAG-----AGAGA
G-----
-----AGGGAGGCAGAG-----
---TCCGACTGTG-----

-----AGCGGGG-----AGAGGCAGGCGCCT-----CTGGTCGATG-----
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GCTA-----TTTCAGAGGCAACACTCTGTAA-TCATAATAGGGAAC---TGGAATTTT
GAGAAGT--AATTTG-AAATTGCGAAGGAGTTGTGACACGTTAAATTGTGTTATCGATGG
TGTGCTCCGGC-----AGCGATTTCT-----TTTTTTTTTC--
-----TT-----CCTG-----GG
CGCG-----
-----CTCGC-----
-----AGAGAGCCAGGGAAAG-----CTAA
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C-----

>uHMxcne_Zebrafish

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CTTTTTTAGTACAATATA-----TTTATATATTGACAATATATACTA
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-----GCCGTTTTAATTACTG-----
-----TACTCAGTTTGTT-----TGATTAATCCAGCC
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CACATTTATATGTGTTTATAAGT-----GGCTC-----TGAGT
GACTGCTCACCATCTCGGC-----TCCAAACAACGAG
CAATAATCAGCTCATT-----AAAGAGCTC-----
----CCCCTTGCATCATAACCCCTG-----TGCTC-----AT
CTAAATAAC-----AAATAACTCTCCCTCCGTCCTGCCTTTT

TG---C-TCAGAGGCAAAGAGCA---AGGATCCTA-TTTATGGT--GTCATTTAGCCAGC
AA----GCA-GCCAACAATCCTGG-----
-----GA-----AAAAATCGAAGCATAATCAAGGTGTA
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ACAATCCTG--CAGTAATGGC-ACACTATAGCG-TTT-GGGAAAGGAA---T----TTTT
GAAAGG---GGCTTGAAGAAAGCGAAGCTGTTATGACACTAGAAATTGCTTTATTGATAG
CCTTGCCTCTCGCTGCACATTT-GGCAATTTGTAACCTTCCCCATATCTATATTTTCCAGC
-GTGACA--CTGATAAGAACCTTTCTGTCCCC--TACCAGATTACA-GTTTG--TAATGA
CACA----CAACGTTTTTCAGAAGCCAG-----TCTAGGACCCCATTTGAGCATTCTACAAA
CATGCTAAA--CCGGTTAAAAGATCAA--CATCATTTTTCATCTACCGCCACTATGTCATG
CATTACCTGAA----CTGTTATTAAATTGTACATGTATAATTGCCACTG-----CTGA
TCTACCAGGACCTTATGTGCATGTATTTAAA-----CTTT-----AGTCC
CATGGCAGTGATAGACCTATAAATATGTATATTACTAGATTACTTGCACGATG-----
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-----TCCTTGCATTTGATTTAGT--GC-----TTATCACGTCTTTGAG----AC
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--CCATGAGCTGAGTAAAGACGTTGCTGTAACAAAGCCTATTTCTTTGTAG--ATGCCG
TAAA-----AGAAATCCTG-----CTGTTTGTGTGCGTTGTGGCAGAAG
TCCATTGGCGTG--GTTTTTCAGCAAGGAAGGAAAACCTCAGTGCAGGTATTGCCGTCTCA
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AGCCACTTCTG-CTTCGCATCAGTGGGCTCTGGAG---GGACAAGGGGGCTCTGAGGGC
CCCAAATCCAGCACAG-----AGACAGGTG
TGAGCAGAGGGAG---CTCCCTGC-----TGAGATCCTCAGCC
TTC-CCACATTGTA CTGGTG-----CTGCCAGCCTGAAGGAG-----CA-CTG--
-AAGGTTAG-----TGAGAAGAGCCTC-----G-CTG-----CGAGG
C-CTTTCCCCTTGAGCATGTGGCTGCAT-----CTCCTTCGC--AG
CACCCAGCCCCTCAGCCACGACACA-----
---TCCGGCTGCACCGCTCCTCCCGCC---GGCTC---GTTTCTCTGCTTGAAAATCC
CTGGATAACCTGTT-----ATTTAAATGAA-----CCTCTCACACGTTGGCT
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-----AACGGAT--TGTCTGTAAAA--GATCATCTGTACCTTA-TCGGTG-----
TCCCAATCCTCTACCCTCCCTTCCCCCGCCCCAAA---ACAAAAC-----CTGTCA
GAGGTG--CACCACGTGTGTGAAACTAGTCGATT-----TCCTTAA
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CCATTT-----AGAAAGAGAAAATCACA-----CCTCCAGGC-ATGCC-----
TG---CTTCAGAGGCAAAGAGCA---AGAAGCCTATTTTATGGT--GCCATTTAGCCTGC
AA----GCT-TTCAGCAATCCTAGCC-----
-----TCCA-----AAAAATCGAAGCATAATCAAGGTGTA
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CCTCGCCTCTCGCTGCACATTT-TGCAATTTGTAACCTGGCCCATATCTATATTTTCAGG
-CTGACA--CCAAGAAGAACCTCGCTGTCCCCACACCAGATTACA-CCGTG--TAATGA
CACG----GCA---GCGCGGCGGTGAGGGG--CCG-----CCCGGCCGCTCCTCCGGGG
CAGGCCGCGGGCCGGGCGAGGGGCCAGCTGCTCCGGCCTGCAGGCTGCCTT-----
CGCCAGAGGGAGCTCCAGGAGAGACTCAGGGGAAGACGGCGGGGGCCCTGAGGCTGCCTGC
GGGCTCCT--CCCCACCGCCCCGGGGCTGAG-----GCACCCTTG-----GGCC
GCAGCATGGGCTGGGCTGA-----GGGC--TGGTGGCTGGTGTGGCCTACA-----
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-----AGCTTAGAATGAAAAAGTGCCT-----TGAAATACTGCTGCTG-----A
GTATCA-----GCAAAGGGCTCACCAGGGAGATGCCGGTGTGTG-----C
ATCCCT-----GTTGGCAAGGTTTG-----TCCC-----CTCACAG
-----GTGAG-TAACTGCCACGGTGGGCAATCCTGTTCCTCCTGTGCTGCTT
-----GGC----TGGGCTGA-----AGAA-----
GCAAACCCGTAG-----

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CGAT-----GGGGCCTCTT---GGTGCTA--CTATACTAAAAATAATGTCGGAGAGG
TTGCTCGGTGGA--ATTTGCAAGGGGGA-----A
GACAAGTT-----AAGAACACTGGGGTAGA-ACTCCT-----
----AACACTG-AATTGCGTTTGGTCAGAGTGGAGA---AGA-----
-----CAGCTTTAACAA-----AGGCAG---
-----GGTAGCAGTGACCCCAACAATGA-----AT-AATGGTGTCTTCAGCC
TTAGTCAAAATGT-CCCAGTG-----CTTCCAACCTTTAGTGAGTATTGGTTA-CTA--
-AAAGTTACT-----TGCAAAGAAATAAA-----AGTTT-----TGAAG
G-CTGCCCATTTAAACTGCAGTCTGCCCCCTCCTTTTTCTCTCCCTCCTTTAACACA
CACACACAGGCT-----TAGA-----AAGGGAGGCAAAGAGTCAGTCTCATTTT
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CTGGATAACGTGTT-----ATTTAAATGAA-----CCTATTGCACGTATGCT
A-TGGTTACT--TACTTTT-----CTCAATGACGAATCTTAA-----
-----AACGGAT--TGTCTGTAAAA--GATCATCTGTACTTTA-CCAGTG-----
TCCCAG-----TTCTTTCCCCCTCCAAAAAAAAAAAAAAAAAAC-----CTGTCA
AAGGTG--CACCACGTGTGTGAAACTAGTCGATT-----TCCTTAA
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AA----GCT-TTCAGCAATCCTAGCC-----
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ACAATCCAG--CCCTAATGGT-AGTCTGTAGCG-TTTCCAGAAGAAAA---T---TTTT
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-CTGACA--CTGATAAGAACCTTTCTGTCCCCATACCAGATTACA-CTTTG--TAATGA
CATG----GAGAATGCA--GCGGTGAGGGG-CTGAGA--GCAAGTCACCTCCCTT----
-----CA-----CATCCTCCTC-----CTCCTCT-----
CATCAGAGGCA-----AGTTAAACAAGGGAAATGAGTTGGGGGCTG-----CTGG
AGTCTCAT--CCTTTTCTCCTGTAGTAAGGGGCTGATAGCAGCCTTC-----ACTCT
CCATA-----TCACCCTCA-----TCCCCTCAACAGAGCAAGTTAAACAGG-----

-G-TAAGATGAAATGAGAGACTG-----CTG-----CTGGAGTCCCA
TCCTCTCCCCTTCCATG-----CTCAGGCCAAAGGGG-----
-----TGGA-----TGGGAAATAACAGTGGGAATCAGTCTG
TCTGTGAGCAAGCAGGAGGTG--CATAATT-----CCCATGCTCCAGGGAGAG
GCTTCATAATTCACAGACAGAA-----AGAAGCAGCTTTCTG-----G
AACACT-----GTTACCAGCTGTGA--TGATCTTTC-----GCTAGGG
-----GGAGCTAGAAGCTACCT-TGTTGCCAGACAGGTTTTGGTAAGAGAGACAGATT
-----AGGTTGCATATTAA-----TTAAGA-----
GAAGGTAGT-----

>uHMXcne_Human

----AGAAGCTGGACAAG-----ATGACG
CTAA-----GGTACGACTA-----TCAGGTTCTATTCTATGAA-GGCGTCAAAGCTT
ATCCTCAGGGATCCATTTCTAGTGGTGAG-----CTTTCA
GACAATGA-----GTGGGCTGATATTTCTCAGCAAGTCACCTCC
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ACCTCATTAAGCACAGCCTCAACAACAACATGCTTTTCTGCAGGAAGATGTAGGTGGAAG
CGTACAGGGAGCCTT--TTCCCAGCTTGAAGCACCCTGGGGCAAAGGAGCTGTTTCATCT
TCCACCAGGGT---CTGAGTGGAAAGGGTCCCCTGAATACAACAGCCTTTCTTCT-CTG--
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G-CTGCCAGCCATGACTG-----CCCCAGCGA-GGG
CAGACACAGGCCCAACCGCGATGGA-----AAGGGAGGC-----CGAGTTCTATTTT
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CTGGATAACACGTT-----ATTTAAATGAA-----CCTATTCCACATCTTCC
A-TGGTTACT--TACTTTT-----CTCAATGACGAATCTTAA-----
-----AACGGAT--TGTCTGTAAAA--GATCATCTGTACTTTA-CCAATA-----
TCCAGG-----CTCCCCCTCCC-----AAAAAA-----CTGTCA
GAGGTA--CACCACGTGTGTGAAACTAGTCGATT-----TCCTTAA
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AA---GCT-TTCAGCAATCCTTGCC-----
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TCCAACGGCATAAGTCATCATCT-----AAAAGAGAAAATGAATAGCAGTTTA
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ACTTCAACC-TTTTCCATTATGGTGGAAATATTA---TTTGTACGGGATCCATTAAATTC
ACAATCCAG--CCCTAATGGT-AGGCTGTAGCG-TTCCAGAAGAAAA--T---TTTT
GAAAGGT--GGTTTGCAGAAAGCGAAGCTGTTATGACACTAGAAATTGCTTTATTGATAG
CCTCGCCTCTCGCCTGAACATTT-TGCAATTTGTAACCTGGCCCATATCTATATTTTCCAGG
-CTGACG--TTGATAAGAACCCTTCTGCCCCCCACACCAGATTACA-CTTTG--TAATGA
CATG---GAGAATGCAGGGTGGGGAGGGGACCGAGAAGGGCAGCCACCTTCTTC----
-----CTCCTCCCTGTCCCCAGCTGTCTCCTC-----CTCCTCT-----
--CCATTGAGA-----AGGAAGATGGTGGAAAGGGGATTGTGTCTTG-----CTGT
GCTCCTGG--TCTTT-----GCTGGCCTT-----GATCC
CCATGATGCCTCAGGCTCA-----GCCTCTCCATGA--ATGTCGACCAGG-----
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-----TGGAGTGGAAAGAATTG-----
-----AGCTAGAGATG--TCCAGTAGGC-----TGGACACTTCTCTCTG-----G
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TAAATTC-----AGGCTTAAGCCCAATCTTGGCCTCTC-----CTCACAC
ACATGCAGACTCAATGTGCTCCCTGCCTTCCCTGGCAACTTGTTCTTTGAGGGGAA----
-----AGATCCAATCTTA-----GAAA-----

GAATCTCCC-----
>uHMXcne_mouse
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ACCCAGAAGTTGAATGAG-----AAAACC
CCAA-----GGTGCCGCTCTTCAGGTTTTAGCCCCTCCGAGAGA-AGTCTTGAAACTT
TCAATCTTGAAACCATCTCTAGCAGTGAG-----CACTTA
GCCAATTG-----ACTGCCAGCGTGGCTGACATTTCTCAGCAAGGTTCCCTGC
TGGTGACACTC-----AGGACTCATCTGCAGG---TAACTCGATCTGTCC-----
-----CAGCCTTAGCCACAGACGGTCTGT-----GAGGCTAAAG
CGTTCAGAAAGCA--GCCCTTCAGCTCAAA-----AC---TGAGTGAGTCAGCT
TGTGCCAGGGCTT-TGGTGTACCCCTGTACCTAGGCACAGTGGCCCTTCTTCC-CTG--
-AAGGCTGTC-----TATCAAATACCC-----AACTT-----TGAGA
G-ATGCCAGTCAGTACTT-----CACCTCGAGAAG
GAGGCATCAGCCCGACCTCTATGCA-----AAGGGAGGC-----TGGGTTTCATTTT
CTCCCAGCTGCGTCAGCCCCTTTAA-----TGTCTCAATTCTCCACCTCGAAAGTCC
CTGGATAACGTGCT-----ATTTAAATGAA-----CCTATTGCACGTCTTCC
A-TGGTTACT--TACTTTT-----CTCAATGACGAATCTTAA-----
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TCCAGG-----CTCCCCCTCCC-----AAAAAA-----CTGTCA
GAGGTA--CACCACGTGTGTGAAACTAGTCAATT-----TCCTTAA
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CCATTT-----AGAGAGAGAAAATCACA-----CCTCCAGGC-CTGCC-----
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AA---GCT-TTCAGCAATCCTTGCC-----
-----TCCA-----AAAAATCGAAGCATAATCAAGGTGTA
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GCCGACGACATAGATCATCATCG-----AAAAGAGAAAATGAATAGCGGTTTA
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ACAATCCAG--CCCTAATGGT-AGGCTGTAGCG-TTTCCAGAAGAAA---T----TTTT
GAAAGGT--GGTTTGCAGAAAGCGAAGCTGTTATGACACTAGAAATTGCTTTATTGATAG
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-CTGACG--TTGATAAGAACCCTTCTGCCCCCCACACCAGATTACA-CTTTG--TAATGA
CATG----GAGAATGTAGGGGGAGGAGGGGG-CTGAGAAGGGCAGCCACCTCTTCC----
-----TTTGTCTGTCCCAGCTGTCTCTCTC-----CTCCTC-----
----GGGGGAA-----AGGAAGATGGTGGAAAGGAG-----TTGCATC---CTGC
CCTACATTGGCCTTG-----GATGCTCTT-----GGCTT
CTA-----TTACGTCTCCAG-----
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-----TAGA-----TGATGCGGAGAAAGCTG-----
-----ATCCAGAGATG--AACAGTTGGC-----TTGACTCTTCCCTCAG-----
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TACATTC-----AGTCATTAGCCCTGGCCTTAGTCTCTT-----
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GTTGAGAAGAGTTTCTAAGGC----AAGTCCAAATCTACCACATGCTGAGAA-----
GATTCCTCCTTT-----