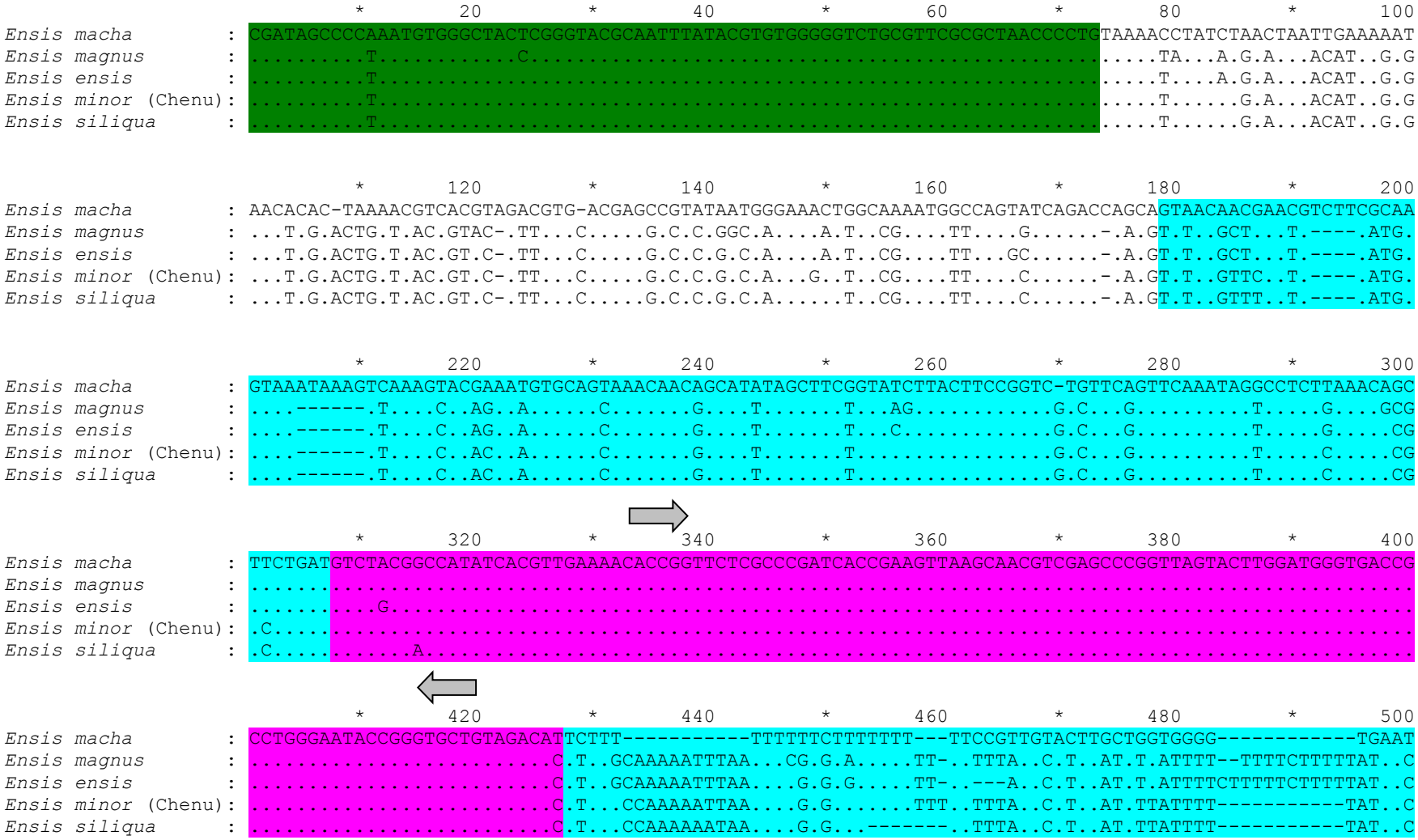
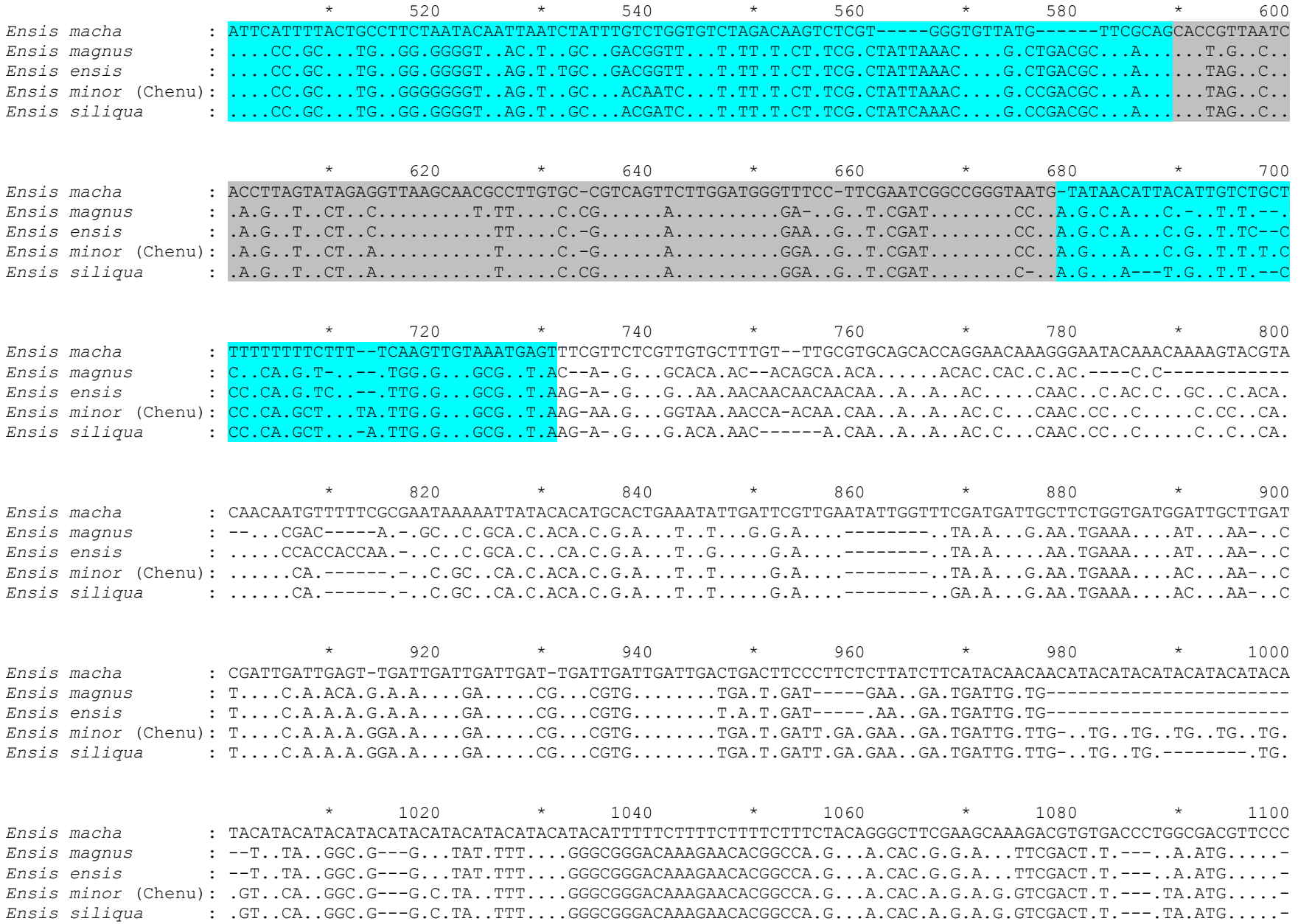
Supplementary File S1 DNA alignment of the U1-U1 clones from *Ensis* species. Regions shaded in green are partial RNA coding regions of U1 small nuclear DNA. Light blue and grey shaded regions are similar to delta and gamma nontranscribed spacers from the species *E. directus* (see main text). The fuchsia region corresponds to the RNA coding region of 5S ribosomal DNA (5S). Grey region is possibly an old pseusogenised 5S copy, as it is similar to the 5S region flanked by the arrows. Dots represent residues identical to those of the first sequence, dashes indicate alignment gaps, and base substitutions are indicated by the respective base.




*
520
540
560
580
600
Ensis macha : ATTCATTTTACTGCCTTCTAATACAATTAATCTATTTGTCTGGTGTCTAGACAAGTCTCGT-----GGGTGTTATG------TTCGCAGCACCGTTAATC
Ensis magnus : ....CC.GC...TG..GG.GGGGT..AC.T..GC..GACGGTT...T.TT.T.CT.TCG.CTATTAAAC....G.CTGACGC...A.....T.G..C..
Ensis ensis : ....CC.GC...TG..GG.GGGGT..AG.T.TGC..GACGGTT...T.TT.T.CT.TCG.CTATTAAAC....G.CTGACGC...A.....TAG..C..
Ensis minor (Chenu): ....CC.GC...TG..GGGGGGGT..AG.T..GC...ACAATC...T.TT.T.CT.TCG.CTATTAAAC....G.CCGACGC...A.....TAG..C..
Ensis siliqua : ....CC.GC...TG..GG.GGGGT..AG.T..GC...ACGATC...T.TT.T.CT.TCG.CTATCAAAC....G.CCGACGC...A.....TAG..C..
*
620
640
660
680
700
Ensis macha : ACCTTAGTATAGAGGTTAAGCAACGCCTTGTGC-CGTCAGTTCTTGGATGGGTTTCC-TTCGAATCGGCCGGGTAATG-TATAACATTACATTGTCTGCT
Ensis magnus : .A.G..T..CT..C.........T.TT....C.CG......A..........GA-..G..T.CGAT........CC..A.G.C.A...C.-..T.T.--.
Ensis ensis : .A.G..T..CT..C..........TT....C.-G......A..........GAA..G..T.CGAT........CC..A.G.C.A...C.G..T.TC--C
Ensis minor (Chenu): .A.G..T..CT..A..........T.....C.-G......A..........GGA..G..T.CGAT........CC..A.G...A...C.G..T.T.T.C
Ensis siliqua : .A.G..T..CT..A..........T.....C.CG......A..........GGA..G..T.CGAT........C-..A.G...A---T.G..T.T.--C
*
720
740
760
780
800
Ensis macha : TTTTTTTTCTTT--TCAAGTTGTAAATGAGTTTCGTTCTCGTTGTGCTTTGT--TTGCGTGCAGCACCAGGAACAAAGGGAATACAAACAAAAGTACGTA
Ensis magnus : C..CA.G.T-..--.TGG.G...GCG..T.AC--A-.G...GCACA.AC--ACAGCA.ACA......ACAC.CAC.C.AC.----C.C----------
Ensis ensis : CC.CA.G.TC..--.TTG.G...GCG..T.AAG-A-.G...G..AA.AACAACAACAACAA..A..A..AC.....CAAC..C.AC.C..GC..C.ACA.
Ensis minor (Chenu): CC.CA.GCT...TA.TTG.G...GCG..T.AAG-AA.G...GGTAA.AACCA-ACAA.CAA..A..A..AC.C...CAAC.CC..C.....C.CC..CA.
Ensis siliqua : CC.CA.GCT...-A.TTG.G...GCG..T.AAG-A-.G...G.ACA.AAC------A.CAA..A..A..AC.C...CAAC.CC..C.....C..C..CA.
*
820
840
860
880
900
Ensis macha : CAACAATGTTTTTCGCGAATAAAAATTATACACATGCACTGAAATATTGATTCGTTGAATATTGGTTTCGATGATTGCTTCTGGTGATGGATTGCTTGAT
Ensis magnus : --...CGAC-----A.-.GC..C.GCA.C.ACA.C.G.A...T..T...G.G.A....--------..TA.A...G.AA.TGAAA....AT...AA-..C
Ensis ensis : .....CCACCACCAA.-..C..C.GCA.C..CA.C.G.A...T..G.....G.A....--------..TA.A.....AA.TGAAA....AT...AA-..C
Ensis minor (Chenu): ......CA.------.-..C.GC..CA.C.ACA.C.G.A...T..T.....G.A....--------..TA.A...G.AA.TGAAA....AC...AA-..C
Ensis siliqua : ......CA.------.-..C.GC..CA.C.ACA.C.G.A...T..T.....G.A....--------..GA.A...G.AA.TGAAA....AC...AA-..C
*
920
940
960
980
1000
Ensis macha : CGATTGATTGAGT-TGATTGATTGATTGAT-TGATTGATTGATTGACTGACTTCCCTTCTCTTATCTTCATACAACAACATACATACATACATACATACA
Ensis magnus : T....C.A.ACA.G.A.A....GA.....CG...CGTG........TGA.T.GAT-----GAA..GA.TGATTG.TG----------
Ensis ensis : T....C.A.A.A.G.A.A....GA.....CG...CGTG........T.A.T.GAT-----.AA..GA.TGATTG.TG----------
Ensis minor (Chenu): T....C.A.A.A.GGA.A....GA.....CG...CGTG........TGA.T.GATT.GA.GAA..GA.TGATTG.TTG-..TG..TG..TG..TG..TG.
Ensis siliqua : T....C.A.A.A.GGA.A....GA.....CG...CGTG........TGA.T.GATT.GA.GAA..GA.TGATTG.TTG-..TG..TG.--------.TG.
*
1020
1040
1060
1080
1100
Ensis macha : TACATACATACATACATACATACATACATACATACATTTTTCTTTTCTTTTCTTTCTACAGGGCTTCGAAGCAAAGACGTGTGACCCTGGCGACGTTCCC
Ensis magnus : --T..TA..GGC.G---G...TAT.TTT....GGGCGGGACAAAGAACACGGCCA.G...A.CAC.G.G.A...TTCGACT.T.---..A.ATG.....-
Ensis ensis : --T..TA..GGC.G---G...TAT.TTT....GGGCGGGACAAAGAACACGGCCA.G...A.CAC.G.G.A...TTCGACT.T.---..A.ATG.....-
Ensis minor (Chenu): .GT..CA..GGC.G---G.C.TA..TTT....GGGCGGGACAAAGAACACGGCCA.G...A.CAC.A.G.A.G.GTCGACT.T.---.TA.ATG.....-
Ensis siliqua : .GT..CA..GGC.G---G.C.TA..TTT....GGGCGGGACAAAGAACACGGCCA.G...A.CAC.A.G.A.G.GTCGACT.T.---.TA.ATG.....-

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                              *      1120         *      1140         *      1160         *      1180         *      1200
Ensis macha         : ATGCTTGAGTAGGTACGTCATCGTTTTAACATTCCTCCACTTTTCTCCTTATTTGCCGGCCTTCACATTCTGCTTACGGGTAGTCTATTTAGAACGTTGT
Ensis magnus        : -..A.G...---...T..AG........TT..GT....GT.G.AT.GA.A.G..TTGC.T...T.....A..T..C..T..----CCA.G.A........
Ensis ensis         : -..A.G...---...T..AG.........T..GTA...GT.G.AT.GA.A.G..TTGC.T...T.T...A..T..C..T..----CCA.G.A........
Ensis minor (Chenu): -.AA.C...---...T..AG............G.....GT.G.AT.GA.A.G..TT.C.T...T.....A..T..C..T..----CC.AG.A........
Ensis siliqua       : -.AA.C...---...T..AG.........T..G.....GT.G.AT.GA.A.G..TT.C.T...T.....A..T..C..T..----CC.AG.A........

                              *      1220         *      1240         *      1260         *      1280         *      1300
Ensis macha         : GAAACGTTTGTACCAGACAC--------------AAGTTGTGTCCGAAGCAGTTGACTAGTCCTTGTCAGATACTGCTCTCGTGGTAAAAAACGATAGAT
Ensis magnus        : .......A.T....CA....CGCACACCAACGTC.C......C..........A..T.T...T.G..A.T...TC..A.C.......C.G...T.A....
Ensis ensis         : .......AAT....CA....CGCACACCAACGTC.C......C..........A..T.C...T.G..A.T...TC..A.C.......C.G...T.A....
Ensis minor (Chenu): .......A.T....CA....CGCACACCAACGTC.C......C.....A....A..T.TA..T.G..A.T...TC..A.C.......C.G...T.A....
Ensis siliqua       : .......A.T....CA....CGCACACCAACGTC.C......C.....A....A..T.TA..T.G..A.T...TC..A.C.......C.G...T.A....

                              *      1320         *      1340         *      1360         *      1380         *      1400
Ensis macha         : TGTATCACTAAATTGAAAAATCAGTGGTGTGGAGTCAATTCGAAAA-TCACTGTCCGACACGTCGGGCCGAATAATACCCTTGTGTGAAAAGGTATGCAC
Ensis magnus        : AAA.A-...T.....CC.TT....A.............T.CGA....AA..A..CA.A.....C....T.......CGA.AGCT.C.C......GT...G.
Ensis ensis         : AAA.A--..T.....CC.TT....A.............T.CGA....AC..A..CA.A.....C....T.......CGA.AGCT.C.C......GT...G.
Ensis minor (Chenu): AAA.A-...T.....CC.TT....AT..C.........T.CGA....ACA.A..CA.A.....C....TT......CGA.AGCT.C.C......GT...G.
Ensis siliqua       : AAA.A-...T.....CC.TT....AT..C.........T.CGA....ACA.A..CA.A.....C....T.......CGA.AGCT.C.C......GT...G.

                                *      1420         *      1440         *      1460
Ensis macha         : GTGCATAGGAAGGCATACTTACCTGGTACAGAGAATACCGTGATCAATCAGGCGGTTTCTCC
Ensis magnus        : A.....G.C..A..........................GA..........CC..............
Ensis ensis         : A...C.G.C..A..........................GA..........CC..............
Ensis minor (Chenu): C.....G.C..A................G....GA..........CC..............
Ensis siliqua       : C.....G.C..A..........................GA..........CC..............
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