

Additional file Figure S3

LSU alignment (765 nt)

Variable sites: 200

Parsimony informative characters: 159

#NEXUS

BEGIN DATA;

dimensions ntax=37 nchar=765;

interleave=yes datatype=DNA gap=-;

matrix

Pan1_66	GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTG
Pan2	GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTG
Pan3_3	GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTG
Hon1_7	GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTG
CUR1_4	GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTG
HA4_1	GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTG
CR19_1	GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTG
CR8_1	GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTG
Fr_K7	GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTG
Fr_K15	GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCAT--AATTG
It_K64	GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTG
It_K80	GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTG
Uk_K77	GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTG
It_IG45	GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTG
CR10	GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTG
It_K61	GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTG
Uk_K78	GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTG
Uk_K93	GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTG
It_IG46	GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCG--TTTAATTG
Pr3_1	GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTG
It_K56	GAGTAACTATGACCCCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTG
Fr_K10	GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTG
Fr_K12	GAGTAACTATGACTCTCTTAACGTAGCCAAATGCCTCGTCATTTAATTG
Fr_M26	GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTG
It_K66	GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTG
Uk_K79	GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTG
Mx_K30	GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTG
It_IG50	GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTG
It_K68	GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTG
Uk_K86	GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTG
It_K52	GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTG
Fr_K18	GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTG
It_K71	GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTG
It_K62	GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTG
It_K63	GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTG
No_K94	GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTG
Ppolycephalum	GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTG

Pan1_66	TGACGCGCATG-AATGGATTAAT--AGATTCCCAGTGTCCCTACCTACTA
Pan2	TGACGCGCATG-AATGGATTAAT--AGATTCCCAGTGTCCCTACCTACTA
Pan3_3	TGACGCGCATG-AATGGATTAAT--AGATTCCCAGTGTCCCTACCTACTA
Hon1_7	TGACGCGCATG-AATGGATTAAT--AGATTCCCAGTGTCCCTACCTACTA
CUR1_4	TGACGCGCATG-AATGGATTAAT--AGATTCCCAGTGTCCCTACCTACTA
HA4_1	TGACGCGCATG-AATGGATTAAT--AGATTCCCAGTGTCCCTACCTACTA
CR19_1	TGACGCGCATG-AATGGATTAAT--AGATTCCCAGTGTCCCTACCTACTA
CR8_1	TGACGCGCATG-AATGGATTAAT--AGATTCCCAGTGTCCCTACCTACTA
Fr_K7	TGACGCGCATG-AATGGATTAAT-GAGATTCCCAGTGTCCCTACCTACTA
Fr_K15	TGACGCGCATG-AATGGATTAAT-GAGATTCCCAGTGTCCCTACCTACTA
It_K64	TGACGCGCATG-AATGGATTAAT-GAGATTCCCAGTGTCCCTACCTACTA
It_K80	TGACGCGCATG-AATGGATTAAT-GAGATTCCCAGTGTCCCTACCTACTA
Uk_K77	TGACGCGCATG-AATGGATTAAT-GAGATTCCCAGTGTCCCTACCTACTA
It_IG45	TGACGCGCATG-AATGGATTAAT-GAGATTCCCAGTGTCCCTACCTACTA
CR10	TGACGCGCATG-AATGGATTAAT-GAGATTCCCAGTGTCCCTACCTACTA
It_K61	TGACGCGCATG-AATGGATTAAT-GAGATTCCCAGTGTCCCTACCTACTA
Uk_K78	TGACGCGCATG-AATGGATTAAT-GAGATTCCCAGTGTCCCTACCTACTA
Uk_K93	TGACGCGCATG-AATGGATTAAT-GAGATTCCCAGTGTCCCTACCTACTA
It_IG46	TGACGCGCATG-AATGGATTAAT-GAGATTCCCAGTGTCCCTACCTACTA
Pr3_1	TGACGCGCATG-AATGGATTAAT-GAGATTCCCAGTGTCCCTACCTACTA
It_K56	TGACGCGCATG-AATGGATTAAT-GAGATTCCCAGTGTCCCTACCTACTA
Fr_K10	TGACGCGCATG-AATGGATTAATTGAGATTCCCAGTGTCCCTACCTACTA
Fr_K12	TGACGCGCATG-AATGGATTAAT-GAGATTCCCAGTGTCCCTACCTACTA
Fr_M26	TGACGCGCATG-AATGGATTAAT-GAGATTCCCAGTGTCCCTACCTACTA
It_K66	TGACGCGCATG-AATGGATTAAT-GAGATTCCCAGTGTCCCTACCTACTA
Uk_K79	TGACGCGCATG-AATGGATTAAT-GAGATTCCCAGTGTCCCTACCTACTA
Mx_K30	TGACGCGCATG-AATGGATTAAT-GAGATTCCCAGTGTCCCTACCTACTA
It_IG50	TGACGCGCATG-AATGGATTAAT-GAGATTCCCAGTGTCCCTACCTACTA
It_K68	TGACGCGCATG-AATGGATTAAT-GAGATTCCCAGTGTCCCTACCTACTA
Uk_K86	TGACGCGCATG-AATGGATTAAT-GAGATTCCCAGTGTCCCTACCTACTA
It_K52	TGACGCGCATG-AATGGATTAAT-GAGATTCCCAGTGTCCCTACCTACTA
Fr_K18	TGACGCGCATG-AATGGATTAAT-GAGATTCCCAGTGTCCCTACCTACTA
It_K71	TGACGCGCATG-AATGGATTAAT-GAGATTCCCAGTGTCCCTACCTACTA
It_K62	TGACGCGCATG-AATGGATTAAT-GAGATTCCCAGTGTCCCTACCTACTA
It_K63	TGACGCGCATGGAATGGATTAAT-GAGATTCCCAGTGTCCCTACCTACTA
No_K94	TGACGCGCATG-AATGGATTAAT-GAGATTCCCAGTGTCCCTACCTACTA
Ppolycephalum	TGACGCGCATG-AATGGATTAAT-GAGATTCCCAGTGTCCCTACCTACTA

Pan1_66	TCTAGCGAAACACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAA
Pan2	TCTAGCGAAACACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAA
Pan3_3	TCTAGCGAAACACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAA
Hon1_7	TCTAGCGAAACACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAA
CUR1_4	TCTAGCGAAACACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAA
HA4_1	TCTAGCGAAACACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAA
CR19_1	TCTAGCGAAACACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAA
CR8_1	TCTAGCGAAACACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAA
Fr_K7	TCTAGCGAAACACAGCCAAGGGAACGGGCTTGGCCCAATTAGCGGGGAA
Fr_K15	TCTAGCGAAACACAGCCAAGGGAACGGGCTTGGCCCAATTAGCGGGGAA
It_K64	TCTAGCGAAACACAGCCAAGGGAACGGGCTTGGCCCAATTAGCGGGGAA
It_K80	TCTAGCGAAACACAGCCAAGGGAACGGGCTTGGCCCAATTAGCGGGGAA
Uk_K77	TCTAGCGAAACACAGCCAAGGGAACGGGCTTGGCCCAATTAGCGGGGAA
It_IG45	TCTAGCGAAACACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAA
CR10	TCTAGCGAAACACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAA
It_K61	TCTAGCGAAACACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAA
Uk_K78	TCTAGCGAAACACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAA
Uk_K93	TCTAGCGAAACACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAA
It_IG46	TCTAGCGAAACACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAA
Pr3_1	TCTAGCGAAACACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAA
It_K56	TCTAGCGAAACACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAA
Fr_K10	TCTAGCGAAACACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAA
Fr_K12	TCTAGCGAAACACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAA
Fr_M26	TCTAGCGAAACACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAA
It_K66	TCTAGCGAAACACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAA
Uk_K79	TCTAGCGAAACACAGCCAAGGGAACGGGCTTGACACAATTAGCGGGGAA
Mx_K30	TCTAGCGAAACACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAA
It_IG50	TCTAGCGAAACACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAA
It_K68	TCTAGCGAAACACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAA
Uk_K86	TCTAGCGAAACACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAA
It_K52	TCTAGCGAAACACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAA
Fr_K18	TCTAGCGAAACACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAA
It_K71	TCTAGCGAAACACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAA
It_K62	TCTAGCGAAACACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAA
It_K63	TCTAGCGAAACACAGCCAAGGGAACGGGCTTGGTACAATTAGCGGGGAA
No_K94	TYTAGCGAAACACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAA
Ppolycephalum	TCTAGCGAAACACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAA

Pan1_66	AGAAGACCCTGTTGAGCTTGACTCTAGGCACAAACGCGAGGTGATTCTAA
Pan2	AGAAGACCCTGTTGAGCTTGACTCTAGGCACAAACGCGAGGTGATTCTAA
Pan3_3	AGAAGACCCTGTTGAGCTTGACTCTAGGCACAAACGCGAGGTGATTCTAA
Hon1_7	AGAAGACCCTGTTGAGCTTGACTCTAGGCACAAACGCGAGGTGATTCTAA
CUR1_4	AGAAGACCCTGTTGAGCTTGACTCTAGGCACAAACGCGAGGTGATTCTAA
HA4_1	AGAAGACCCTGTTGAGCTTGACTCTAGGCACAAACGCGAGGTGATTCTAA
CR19_1	AGAAGACCCTGTTGAGCTTGACTCTAGGCACAAACGCGAGGTGATTCTAA
CR8_1	AGAAGACCCTGTTGAGCTTGACTCTAGGCACAAACGCGAGGTGATTCTAA
Fr_K7	AGAAGACCCTGTTGAGCTTGACTCTAGGCACAGAAGCGAGGTGATTCTAA
Fr_K15	AGAAGACCCTGTTGAGCTTGACTCTAGGCACAGAAGCGAGGTGATTCTAA
It_K64	AGAAGACCCTGTTGAGCTTGACTCTAGGCACAGAAGCGAGGTGATTCTAA
It_K80	AGAAGACCCTGTTGAGCTTGACTCTAGGCACAGAAGCGAGGTGATTCTAA
Uk_K77	AGAAGACCCTGTTGAGCTTGACTCTAGGCACAGAAGCGAGGTGATTCTAA
It_IG45	AGAAGACCCTGTTGAGCTTGACTCTAGGCACAGAAGCGAGGTGATTCTAA
CR10	AGAAGACCCTGTTGAGCTTGACTCTAGGCACAAAAGCGAGGTGATTCTAA
It_K61	AGAAGACCCTGTTGAGCTTGACTCTAGGCACAGAAGCGAGGTGATTCTAA
Uk_K78	AGAAGACCCTGTTGAGCTTGACTCTAGGCACAGAAGCGAGGTGATTCTAA
Uk_K93	AGAAGACCCTGTTGAGCTTGACTCTAGGCACAGAAGCGAGGTGATTCTAA
It_IG46	AGAAGACCCTGTTGAGCTTGACTCTAGGCACAGAAGCGAGGTGATTCTAA
Pr3_1	AGAAGACCCTGTTGAGCTTGACTCTAGGCACAGAAGCGAGGTGATTCTAA
It_K56	AGAAGACCCTGTTGAGCTTGACTCTAGGCACAGAAGCGAGGTGATTCTAA
Fr_K10	AGAAGACCCT-TTGAGCTTGACTCTAGGCACAGAAGCGAGGTGATTCTAA
Fr_K12	AGAAGACCCTGTTGAGCTTGACTCTAGGCACAGAAGCGAGGTGATTCTAA
Fr_M26	AGAAGACCCTGTTGAGCTTGACTCTAGGCACAGAAGCGAGGTGATTCTAA
It_K66	AGAAGACCCTGTTGAGCTTGACTCTAGGCACAGAAGCGAGGTGATTCTAA
Uk_K79	AGAAGACCCTGTTGAGCTTGACTCTAGGCACAGAAGCGAGGTGATTCTAA
Mx_K30	AGAAGACCCTGTTGAGCTTGACTCTAGGCACAGAAGCGAGGTGATTCTAA
It_IG50	AGAAGACCCTGTTGAGCTTGACTCTAGGCACAGAAGCGAGGTGATTCTAA
It_K68	AGAAGACCCTGTTGAGCTTGACTCTAGGCACAGAAGCGAGGTGATTCTAA
Uk_K86	AGAAGACCCT-TTGAGCTTGACTCTAGGCACAGAAGCGAGGTGATTCTAA
It_K52	AGAAGACCCTGTTGAGCTTGACTCTAGGCACAGAAGCGAGGTGATTCTAA
Fr_K18	AGAAGACCCTGTTGAGCTTGACTCTAGGCACAGAAGCGAGGTGATTCTAA
It_K71	AGAAGACCCTGTTGAGCTTGACTCTAGGCACAGAAGCGAGGTGATTCTAA
It_K62	AGAAGACCCTGTTGAGCTTGACTCTAGGCACAGAAGCGAGGTGATTCTAA
It_K63	AGAAGACCCTGTTGAGCTTGACTCTAGGCACAGAAGCGAGGTGATTCTAA
No_K94	AGAAGACCCTGTTGAGCTTGACTCTAGGCACAAAAGCGAGGTGATTCTAA
Ppolycephalum	AGAAGACCCTGTTGAGCTTGACTCTAGGCATAGACGCGAGGTGATTCTAA

Pan1_66	AGGTGTAGCATAGGTGGGAGGGCCTG-GCCCGACCTTGAAATACCACCAC
Pan2	AGGTGTAGCATAGGTGGGAGG-CCTG-GCCCGACCTTGAAATACCACCAC
Pan3_3	AGGTGTAGCATAGGTGGGAGGGCCTG-GCCCGACCTTGAAATACCACCAC
Hon1_7	AGGTGTAGCATAGGTGGGAGGGCCTG-GCCCGACCTTGAAATACCACCAC
CUR1_4	AGGTGTAGCATAGGTGGGAGGGCCTG-GCCCGACCTTGAAATACCACCAC
HA4_1	AGGTGTAGCATAGGTGGGAGGGCCTG-GCCCGACCTTGAAATACCACCAC
CR19_1	AGGTGTAGCATAGGTGGGAGGACCTG-GTCCGACCTTGAAATACCACCAC
CR8_1	AGGTGTAGCATAGGTGGGAGG-CCTG-GCCCGACCTTGAAATACCACCAC
Fr_K7	AGGTGTAGCATAGGTGGGAGGGCCTG-GCCCGACCTTGAAATACCACCAC
Fr_K15	AGGTGTAGCATAGGTGGGAGGGCCTG-GCCCGACCTTGAAATACCACCAC
It_K64	AGGTGTAGCATAGGTGGGAGGGCCTG-GCCCGACCTTGAAATACCACCAC
It_K80	AGGTGTAGCATAGGTGGGAGGGCCTG-GCCCGACCTTGAAATACCACCAC
Uk_K77	AGGTGTAGCATAGGTGGGAGGGCCTG-GCCCGACCTTGAAATACCACCAC
It_IG45	AGGTGTAGCATAGGTGGGAGGACCTG-GTCCGACCTTGAAATACCACCAC
CR10	AGGCGTAGCATAGGTGGGAGGACCTG-GTCCGACCTTGAAATACCACCAC
It_K61	AGGTGTAGCATAGGTGGGAGGGCCTG-GCCCGACCTTGAAATACCACCAC
Uk_K78	AGGTGTAGCATAGGTGGGAGGGCCTG-GCCCGACCTTGAAATACCACCAC
Uk_K93	AGGTGTAGCATAGGTGGGAGGGCCTG-GCCCGACCTTGAAATACCACCAC
It_IG46	AGGTGTAGCATAGGTGGGAGGGCCTG-GCCCGACCTTGAAATACCACCAC
Pr3_1	AGGTGTAGCATAGGTGGGAGGGCCTG-GCCCGACCTTGAAATACCACCAC
It_K56	AGGTGTAGCATAGGTGGGAGGGCCTG-GCCCGACCTTGAAATACCACCAC
Fr_K10	AGGTGTAGCATAGGTGGGAGGGCCTG-GCCCGACCTTGAAATACCACCAC
Fr_K12	AGGTGTAGCATAGGTGGGAGGGCCTG-GCCCGACCTTGAAATACCACCAC
Fr_M26	AGGTGTAGCATAGGTGGGAGGGCCTG-GCCCGACCTTGAAATACCACCAC
It_K66	AGGTGTAGCATAGGTGGGAGGGCCTG-GCCCGACCTTGAAATACCACCAC
Uk_K79	AGGTGTAGCATAGGTGGGAGGGCCTG-GCCCGACCTTGAAATACCACCAC
Mx_K30	AGGTGTAGCATAGGTGGGAGGGCCTG-GCCCGACCTTGAAATACCACCAC
It_IG50	AGGTGTAGCATAGGTGGGAGGGCCTG-GCCCGACCTTGAAATACCACCAC
It_K68	AGGTGTAGCATAGGTGGGAGGGCCTG-GCCCGACCTTGAAATACCACCAC
Uk_K86	AGGTGTAGCATAGGTGGGAGGACCTG-GTCCGCCCTTGAAATACCACCAC
It_K52	AGGTGTAGCATAGGTGGGAGGACCCG-GTCCGCCCTTGAAATACCACCAC
Fr_K18	AGGTGTAGCATAGGTGGGAGGACCTG-GTCCGCCCTTGAA-TACCACCAC
It_K71	AGGTGTAGCATAGGTGGGAGGACCTG-GTCCGCCCTTGAAATACCACCAC
It_K62	AGGTGTAGCATAGGTGGGAGGACCTG-GTCCGCCCTTGAAATACCACCAC
It_K63	AGGTGTAGCATAGGTGGGAGGACCTG-GTCCGCCCTTGAAATACCACCAC
No_K94	AGGTGTAGCATAGGTGGGAGGGCCTG-GCCCGACCTTGAAATACCACCAC
Ppolycephalum	AGGTGTAGCATAGGTGGGAGGGCCATGCCCGTCAATGAAATACCACCAC

Pan1_66	TTTCGACATTGCCTTGCTAATGCTGTAATAAGTAAACGACCCCCCTTCGT
Pan2	TTTCGACATTGCCTTGCTAATGCTGTAATAAGTAAACGACCCCCCTTCGT
Pan3_3	TTTCGACATTGCCTTGCTAATGCTGTAATAAGTAAACGACCCCCCTTCGT
Hon1_7	TTTCGACATTGCCTTGCTAATGCTGTAATAAGTAAACGACCCCCCTTCGT
CUR1_4	TTTCGACATTGCCTTGCTAATGCTGTAACAAATGGACGGTCCCCCTTCGT
HA4_1	TTTCGACATTGCTTTGCTAATGCTGTAATGAATGAACGACCCCCTATCGT
CR19_1	TTTCGACATTGCCTTGCTAATGCTGTAATAAGTAAACGACCCCCCTTCGT
CR8_1	TTTCGACATTGCCTTGCTAATGCTGTAATAAGTAAACGACCCCCCTTCGT
Fr_K7	TTTCGACATCGCTTTGCTAATGCTGTAACGAATGGACGGCCCCCGATGA
Fr_K15	TTTCGACATCGCTTTGCTAATGCTGTAACGAATGGACGGCCCCCGATGA
It_K64	TTTCGACATTGCTTTGCTAATGCTGTAACGAATGGACGGCCCCCTGGTGT
It_K80	TTTCGACATCGCTTTGCTAATGCTGTAACGAATGGACGGCCCCCTGATGT
Uk_K77	TTTCGACATCGCTTTGCTAATGCTGTAACGAATGGACGGCCCCCGATGA
It_IG45	TTTCGACATTACTTTGCTAATGCTGTAACGAATGAACGACCCCCTGGGTCTG
CR10	TTTCGACATTGCCTTGCTAATGCTGTAACGAATGAACGGCCCCCTGTTTG
It_K61	TTTCGACATCGCTTTGCTAATGCTGTAACGAACGAACGGCCCCCGGGCCC
Uk_K78	TTTCGACATCGCTTTGCTAATGCTGTAACGAACGAACGGCCCCCGGAAGT
Uk_K93	TTTCGACATCGCTTTGCTAATGCTGTAACGAACGAACGGCCCCCGGGCCC
It_IG46	TTGAGACATTGCTTTGCTAATGCTGTAACGAACGAACGGCCCCCGGGCCG
Pr3_1	TTGAGACATTGCTTTGCTAATGCTGTAACGAACGAACGGCCCCCGGGCCG
It_K56	TTTCGACATCGCTTTGCTAATGCTGTAACGAACGAACGGCCCCCGGAAGT
Fr_K10	TTTCGACATCGCTTTGCTAATGCTGTAACGAACGAACGACCCCCAGGACC
Fr_K12	TTTCGACATCGCTTTGCTAATGCTGTAACGAACGAACGGCCCCCGGAAGT
Fr_M26	TTTCGACATCGCTTTGCTAATGCTGTAACGAACGAACGGCCCCCGGGCCC
It_K66	TTTCGACATCGCTTTGCTAATGCTGTAACGAACGAACGACCCCCAGGACC
Uk_K79	TTTCGACATCGCTTTGCTAATGCTGTAACGAACGAACGACCCCCAGGACC
Mx_K30	TTGAGACATTGCTTTGCTAATGCTGTAACGAACGAACGGCCCCCGGTTCC
It_IG50	TTGAGACATTGCTTTGCTAATGCTGTAACGAACGAACGGCCCCCGGGCCG
It_K68	TTTCGACATCGCTTTGCTAATGCTGTAACGAACGAACGGCCCCCGGGCCC
Uk_K86	TTTCGACATTGCTTTGCTAATGCTGTAACGAACGAACGGCCCCCGGGCTG
It_K52	TTTCGACATTGCTTTGCTAATGCTGTAACGAACGAACGGCCCCCGGGCCG
Fr_K18	TTTCGACATTGCTTTGCTAATGCTGTAACGAACGAACGGCCCCCGGGCTG
It_K71	TTTCGACATTGCTTTGCTAATGCTGTAACGAACGAACGGCCCCCGGGCCG
It_K62	TTTCGACATTGCTTTGCTAATGCTGTAACGAACGAACGGCCCCCGGGCCG
It_K63	TTTCGACATTGCTTTGCTAATGCTGTAACGAACGAACGGCCCCCGGGCCG
No_K94	TTTCGACATTGCTTTGCTAATGCTGTAACGAACGAACGGCCCCCTGGACG
Ppolycephalum	TTTCGACATCGCTTTGCTAATGCTGTAACGAACGAACGGAACCGCTCCC

Pan1_66	GTCCGGCCTTCACGGGTCGGTACGGTCATGTTCTGGCGTTTTCCCTGCTGG
Pan2	GTCCGGCCTTCACGGGTCGGTACGGTCATGTTCTGGCGTTTTCCCTGCTGG
Pan3_3	GTCCGGCCTTCACGGGTCGGTACGGTCATGTTCTGGCGTTTTCCCTGCTGG
Hon1_7	GTCCGGCCTTCACGGGTCGGTACGGTCATGTTCTGGCGTTTTCCCTGCTGG
CUR1_4	GTCCGGCTCCTCACGGGGTGTAAGATCATGTTCTGGCGTTTTCCCGGTTCTG
HA4_1	GTCCGGCTGCCTTCGGGTGGTAAGGTTATATTCTGGATTTTTCTGCTTTG
CR19_1	GTTGGCTCCTCGCGGGGTGTAAGGCTATGTTCTGGCGTTTTCCCTGCTGG
CR8_1	GTCCGGCCTTCACGGGTCGGTACGGTCATGTTCTGGCGTTTTCCCTGCTGG
Fr_K7	CTCGGTTGCCTCCGGGCGGTAAGGCTTCTTTCTGGTGATTTCCCGGTCCTG
Fr_K15	CTCGGTTGCCTCCGGGCGGTAAGGCTTCTTTCTGGTGATTTCCCGGTCCTG
It_K64	CCCAGCTACCTCCGGGTAGTAAGGCTTCTTTCTAGCGATTTCCCGGTCCTG
It_K80	CTCGGCTGCCTCCGGGTGGTAAGGCTTCTTTCTGGTGATCTCCCGGTCCTG
Uk_K77	CTCGGCTGCCTCCGGGCGGTAAGGCTTCTTTCTGGTGATTTCCCGGTCCTG
It_IG45	CTCGGCTGCTTAACTGTGGTAAGGTCATATTCTAGCGCTATCCTAGCTAG
CR10	TCGTGCCCTACGGTGCGGGTAAGGTCATATTCTGGTGTTTTCCCGGTTGG
It_K61	GTCACCCGCAAGGGTGCGGTAAGGTCATATTCTAGCGCTTTCCCTAGTCGG
Uk_K78	TGCCCCGAAGGGTAGTTTGTAAGGTCATATTCTAGCGCTTTCCCTAGCGGG
Uk_K93	GTCGCCCCGAAGGGTGCGGTAAGGTCATATTCTAGCGCTTTCCCTAGTCGG
It_IG46	CCATCCGCAAGGGTGCGAGTACGGTCATATTCTAGCGCTTTCCCTAGTCGA
Pr3_1	CCATCCGCAAGGGTGCGAGTACGGTCATATTCTAGCGCTTTCCCTAGTCGA
It_K56	TGCCCCGAAGGGTAGTTTGTAAGGTCATATTCTAGCGCTTTCCCTAGCGGG
Fr_K10	GTTGCCCCGAAGGGTGACGTAAGGTCATATTCTAGCGCTTTCCCTCGTTGG
Fr_K12	TGCCCCGAACGGTAGTTTGTAAGGTCATATTCTAGCGCTTTCCCTGCGGG
Fr_M26	GCCATCCGCAAGGGTGCGGTAAGGTCATATTCTAGCGCTTTCCCTAGTTGG
It_K66	GTTGCCCCGAAGGGTGACGTAAGGTCATATTCTAGCGCTTTCCCTCGTTGG
Uk_K79	GTTGCCCCGAAGGGTGACGTAAGGTCATATTCTAGCGCTTTCCCTCGTTGG
Mx_K30	CGTCTTCGGGCGGTGCCGGTAAGGTTATATTCTAGCGCTTTCCCTAGTCGG
It_IG50	CCATCCGCAAGGGTGCGAGTACGGTCATATTCTAGCGCTTTCCCTAGTCGA
It_K68	GTCACCCGCAAGGGTGCGGTAAGGTCATATTCTAGCGCTTTCCCTAGTCGG
Uk_K86	TCCAGGCCGCAAGGTCTGGTAAGGTCATATTCTAGCGCTTTCCCTGGCTGG
It_K52	CTTGGGCCGCAAGGTTTCAGTAAGGTCATATTCTAGCGCTTTCCCTGGCTAT
Fr_K18	TTTCAGGCCGCAAGGTCTGGTAAGGTCATATTCTAGCGCTTTCCCTGGCTGG
It_K71	CTTGGGCCGCAAGGTTTCAGTAAGGTCATATTCTAGCGCTTTCCCTGGCTAT
It_K62	CTTGGGCCGCAAGGTTTCAGTAAGGTCATATTCTAGCGCTTTCCCTGGCTAA
It_K63	CTTGGGCCGCAAGGTTTCAGTAAGGTCATATTCTAGCGCTTTCCCTGGCTGG
No_K94	TCGGTGCCCTCGCGGTATGTAAGGTCATCTTCTAGCGCTTTCCCTAGCTAG
Ppolycephalum	TCTCACCGTAAAGGTGGGGCAATCCAAATTCTAGCGCTTTCCGCGCTCA

Pan1_66	TAATGATGGCGTGGCTACCTCGGAGAAGTACCCTGAGGCCGCAATCCAGG
Pan2	TAATGATGGCGTGGCTACCTCGGAGAAGTACCCTGAGGCCGCAATCCAGG
Pan3_3	TAATGATGGCGTGGCTACCTCGGAGAAGTACCCTGAGGCCGCAATCCAGG
Hon1_7	TAATGATGGCGTGGCTACCTCGGAGAAGTACCCTGAGGCCGCAATCCAGG
CUR1_4	TCATGATGGCTTGGCTACCCTGGATAAGTACCCTAGGGCCGCAACGTGGG
HA4_1	CCACGATGGTCTGGCTACCCTGGGTGAGTACCCTGGGACCGTGAGTCGGG
CR19_1	TCACGATGGCTTGGCTACCTTGGGTAGTACCCTCGGGGCTACAAGCCGGG
CR8_1	TAATGATGGCGTGGCTACCTCGGAGAAGTACCCTGAGGCCGCAATCCAGG
Fr_K7	ATACGGTGGTTTTGGCCCCCTCTGGGATAGTACCTCGAGACCATGAGTTGGG
Fr_K15	ATACGGTGGTTTTGGCCCCCTCTGGGATAGTACCTCGAGACCATGAGTTGGG
It_K64	ATATGATGGCTTGGCCCCCTCTGGGTGAGTACTTGGGACCATGAGTCGGG
It_K80	ACACGGTGGCTTGGCCCCCTCTGGGTGAGTACTTCGAGACCATGAGTTGGG
Uk_K77	TCATGATGGTTTTGGCCCCCTCTGGGATAGTACTTCGAGACCATGAGTTGGG
It_IG45	-TACGACGGTTTTGCCCCCTGCGGGATAGTACCCTGGGACCGTGAGTTGGG
CR10	TCATGATGGTCTGGCCCCCTCTGGGCGAGTACCCTGGGACCGTGCGTTGGG
It_K61	ATACGATGGCTTGGCTCCTCTGGGTGAGTACCCTGGGACCGCAAACTGGG
Uk_K78	ATACGGTAACCTTGGCTCCTCTGGGTGAGTACCCTGGATCCACAAACTGGG
Uk_K93	ATACGATGGCTTGGCTCCTCTGGGTGAGTACTCTGGGACCGCAAACTGGG
It_IG46	GTACGACGGCTTGGCTCCTCTGGGTGAGTACCCTGGGACCGCAAGTTGGG
Pr3_1	GTACGACGGCTTGGCTCCTCTGGGTGAGTACCCTGGGACCGCAAGTTGGG
It_K56	ATACGGTAACCTTGGCTCCTCTGGGTGAGTACCCTGGATCCACAAACTGGG
Fr_K10	GTATGATGGTTTTGGCTCCTCTGGGATAGTACTTCGAAGCTGCAAACTGGG
Fr_K12	ATACGGTAACCTTGGCTCCTCTGGGTGAGTACCCTGGATCCACAAACTGGG
Fr_M26	ATACGGTGGCTTGGCCCCCTCTGGGTGAGTACTCTGGGACCGCAACCTGGG
It_K66	GTACGATGGTTTTGGCTCCTCTGGGATAGTACTTCGGGACTGCAAACTGGG
Uk_K79	GTACGATGGTTTTGGCTCCTCTGGGATAGTACTTCGGGACTGCAAACTGGG
Mx_K30	TCACGACGGCTTGGCTCCTCTGGGATAGTACTCTGAGACCGCGAGCCGGG
It_IG50	GTACGACGGCTTGGCTCCTCTGGGTGAGTACCCTGGGACCGCAAGTTGGG
It_K68	ATACGATGGCTTGGCTCCTCTGGGTGAGTACCCTGGGACCGCAAACTGGG
Uk_K86	TCATGATGGCTTGGCTCCTCTGGGTGAGTACTCTGGGACCGCAAACTGGG
It_K52	ACAAGGTGGCTTGGCTCCTCTGGGTGAGTACTCTGGGACCGCAAACTGGG
Fr_K18	TCATGATGGCTTGGCTCCTCTGGGTGAGTACTCTGGGACCGCAAACTGGG
It_K71	ACAAGGTGGCTTGGCTCCTCTGGGTGAGTACTCTGGGACCGCAAACTGGG
It_K62	TCAAGACGGCTTGGCCCCCTCTGGGTGAGTACTCTGGGACCGCAAACTGGG
It_K63	TCAAGATGGCTTGGCCCCCTCTGGGTGAGTACTCTGGGACCGCAAACTGGG
No_K94	GTACGGTGGTTTTGGCCCCCTCTGGGTGAGTACCCTGGGACCGAGCTGGG
Ppolycephalum	-TACGACGAGTTGGCTCCCCTGGGTGAGTACCCTGGAACCGAGCTGGG

Pan1_66	CTTTCGGGCTCGGTGAGCGCTGTTCTCGGGGAACCGGGGTTTCGTTGTG
Pan2	CTTTCGGGCTCGGTGAGCGCTGTTCTCGGGGAACCGGGGTTTCGTTGTG
Pan3_3	CTTTCGGGCTCGGTGAGCGCTGTTCTCGGGGAACCGGGGTTTCGTTGTG
Hon1_7	CTTTCGGGCTCGGTGAGCGCTGTTCTCGGGGAACCGGGGTTTCGTTGTG
CUR1_4	CTTCCGGGCTCGCAGCGCTTGTCTTGGGGGAACCTGGGGATC-GCTGGG
HA4_1	CTTCCGAGTCTGGCGAGCGCTGTTCTCGGGGAACCTAGGGCTT-GTTGGG
CR19_1	CTTCCGGGCTCGGTGAGTATTGTTCTCGGGGAACCTAGGGTCCGCTGGG
CR8_1	CTTTCGGGCTCGGTGAGCGCTGTTCTCGGGGAACCGGGGTTTCGTTGTG
Fr_K7	CTTCCGAGCCCCGGCGAGTGTTG-TTTTGGGGGAACACGCGACG-GTTGAG
Fr_K15	CTTCCGAGCCCCGGCGAGTGTTG-TTTTGGGGGAACACGCGACG-GTTGAG
It_K64	CTTCCGAGCCTGGCGAGTGCTG-TCTTGGGGGAACACAGAGAAG-GTTGGG
It_K80	CTTCCGAGCCTGGCGATTGCTG-TCTTGGGGGAACACGCGACG-GTTGAG
Uk_K77	CTTCCGAGCCCCGGCGAGTGCTG-TTTTGGGGGAACACGCGACG-GTTGAG
It_IG45	CTTCCGAGTCCGGCAAACGCTGCTTCTGGGGGAACCTGCGGAAG-GTACGA
CR10	CTTCCGAGTCTGACAAACGTTGCTCCCGGGGAACACAGGGATG-GTTGGA
It_K61	CTTCCGGGCTCTGGTGCGCGTTGTTTCCGGGGGAACACAGGGATG-GTTGGG
Uk_K78	CTTCCGGGCTCTGGTGCGTGCTGCTTCTGGGGGAACCTAGGGATG-GTCGGG
Uk_K93	CTTCCGGGCTCTGGTGCGCGTTGTTTCCGGGGGAACACAGGGATG-GTTGGG
It_IG46	CTTCCGGGCTCTGACGAGCGTTGCTCCTGGGGGAACACAGGGATA-GTTGGG
Pr3_1	CTTCCGGGCTCTGACGAGCGTTGCTCCTGGGGGAACACAGGGATA-GTTGGG
It_K56	CTTCCGGGCTCTGGTGCGTGCTGCTTCTGGGGGAACCTAGGGATG-GTCGGG
Fr_K10	CTTCCGGGTTTCGGTGCGCAT-G-TTTTGGGGGAACACAGGGATG-GTTGGA
Fr_K12	CTTCCGGGCTCTGGTGCGTGCTGCTTCTGGGGGAACCTAGGGATG-GTCGGG
Fr_M26	CTTCCGGGCTCTGGTGCGCGTTGCTTCCGGGGGAACACAGGGATG-GTTGGG
It_K66	CTTCCGGGTTTCGGTGCGCATTG-TTCTGGGGGAACACAGGGATG-GTTGGA
Uk_K79	CTTCCGGGTTTCGGTGCGCATTG-TTCTGGGGGAACACAGGGATG-GTTGGA
Mx_K30	CTTCCGGGCTCTGGTGAGCGTTGCTCCTTGGGGGAACACAGGGATA-GTTGGG
It_IG50	CTTCCGGGCTCTGACGAGCGTTGCTCCTGGGGGAACACAGGGATA-GTTGGG
It_K68	CTTCCGGGCTCTGGTGCGCGTTGTTTCCGGGGGAACACAGGGATG-GTTGGG
Uk_K86	CTTCCGGGCTCTGGTGCGCGCTGCTCCTGGGGGAACACAGAGATG-GTTGGG
It_K52	CTTCCGGGCTCTGGTGCGCGCTGCTCCTGGGGGAACACAGAGATG-GTTGGG
Fr_K18	CTTCCGGGCTCTGGTGCGCGCTGCTCCTGGGGGAACACAGAGATG-GTTGGG
It_K71	CTTCCGGGCTCTGGTGCGCGCTGCTCCTGGGGGAACACAGAGATG-GTTGGG
It_K62	CTTCCGGGCTCTGGTGCGCGCTGCTCCTGGGGGAACACAGAGATG-GTTGGG
It_K63	CTTCCGGGCTCTGGTGCGCGCTGCTCCTGGGGGAACACAGAGATG-GTTGGG
No_K94	CTTACGAGTCTGGTGAGTGTCGCTTCCGGGGGAACACAGGGACG-GTTGGA
Ppolycephalum	CTTCCGAGTCCGGCGAGTGCTGTTTCCGGGGGAACACAGAGACG-GTCTTC

Pan1_66	CTGTCCTCTGGCCGGCGTAAAGG--GGTATACAAGTC-GTGTAGCAAAC
Pan2	CTGTCCTCTGGCCGGCGTAAAGG--GGTATACAAGTC-GTGTAGCAAAC
Pan3_3	CTGTCCTCTGGCCGGCGTAAAGG--GGTATACAAGTC-GTGTAGCAAAC
Hon1_7	CTGTCCTCTGGCCGGCGTAAAGG--GGTATACAAGTC-GTGTAGCAAAC
CUR1_4	TTGTCCCTCTGGCCGGCGTTAACGG-GGTACATAAGTA-GTGTAGCAGACT
HA4_1	CTGTCCTCTGGTGGGCGTTAAATG-GGTACATAAGTC-GTGTAGCAGACT
CR19_1	TTGTCCCTCTGGCTGGCTTCGAGG--GGTACACAAGTT-GTGTAGCAAAC
CR8_1	CTGTCCTCTGGCCGGCGTAAAGG--GGTATACAAGTC-GTGTAGCAAAC
Fr_K7	CTGTCCTCTGTCTGGACCTCGTAG--GGTACATAAGCC-GTGTAGCAAAC
Fr_K15	CTGTCCTCTGTCTGGACCTCGTAG--GGTACATAAGCC-GTGTAGCAAAC
It_K64	CTGTCCCTCTGTTGGGCCAACGAAG-GGTACATAAGCC-GTGTAGCAAAC
It_K80	CCGCCCTCTGTCTGGACCTCGTAG--GGTACATAAGCC-GTGTAGCAAAC
Uk_K77	CTGCCCTCTGTCTGGACCTCGTAG--GGTACATAAGCC-GTGTAGCAAAC
It_IG45	CTGTCCCTCTG-CTGGCATCCG----GGTCATAAGTC-GTGTAGCAGACT
CR10	CTGTCCCTCTGTCTGGCCTCGGTAG-GGTACATAAGTT-GTGTAGCAAAC
It_K61	CTGTCCCTCTGTCCGGCGAAATCG--GGTACGTAAGCC-GTGTAGCAGACC
Uk_K78	CTGCCCTCTGTCTGCAAAATCG--GGTACGTAAGCC-GTGTAGCAGACA
Uk_K93	CTGTCCCTCTGTCTGGCGAATCG---GGTACGTAAGCC-GTGTAGCAGACC
It_IG46	CTGTCCCTCTGCTTGGCGATTTCG---GGTACGTAAGCC-GTGTAGCAGACC
Pr3_1	CTGTCCCTCTGCTTGGCGATTTCG---GGTACGTAAGCC-GTGTANCAGACC
It_K56	CTGCCCTCTGTCTGCAAAATCG--GGTACGTAAGCC-GTGTAGCAGACA
Fr_K10	CTGTCCCTCTGCCTGGCAATTTTG--GGTACGTAAGCC-GTGTAGCAGACT
Fr_K12	CTGCCCTCTGTCTGCAAAATCG--GGTACGTAAGCC-GTGTAGCAGACA
Fr_M26	CTGTCCCTCTGTCTGGCAAGTCG---GGTACGTAAGCC-GTGTAGCAGACC
It_K66	CTGTCCCTCTGCCTGGCAATTTTG--GGTACGTAAGCC-GTGTAGCAGACT
Uk_K79	CTGTCCCTCTGCCTGGCAATTTTG--GGTACGTAAGCC-GTGTAGCAGACT
Mx_K30	CTGTCCCTCTGGCCGGCGTCCT----GGTACGTAAGCC-GTGTAGCAGACC
It_IG50	CTGTCCCTCTGCTTGGCGATTTCG---GGTACGTAAGCC-GTGTAGCAGACC
It_K68	CTGTCCCTCTGTCCGGCGAAATCG--GGTACGTAAGCC-GTGTAGCAGACC
Uk_K86	CTGCCCTCTGTCTGGCGTCAAAATGGGTACGTAAGCC-GTGTAGCAGACA
It_K52	CTGCCCTCTGGATAGCATAAAATATGGGTACGTAAGCC-GTGTAGCAGACC
Fr_K18	CTGCCCTCTGTCTGGCGTCAAAATGGGTACGTAAGCC-GTGTAGCAGACA
It_K71	CTGCCCTCTGGATAGCATAAAATATGGGTACGTAAGCC-GTGTAGCAGACC
It_K62	CTGCCCTCTGTATAGCATAAAATATGGGTACGTAAGCC-GTGTAGCAGACC
It_K63	CTGTCCCTCTGTCTGGCATAAAATATGGGTACGTAAAGCCGTGTAGCAGACC
No_K94	TCACCCCTCTGCCTGGCGTAATCG--GGTACGTAAGCC-GTGTAGCAGACC
Ppolycephalum	TCGGCCTCTG-TGGGCTTCATGCC-GGTACGTAATTGCGTGTAGCAGACT

Pan1_66	ATTT-GTGTTAGGGAGTTT-GGCTGGGGCGGAAAA-CTGCTACACGGCAA
Pan2	ATTT-GTGTTAGGGAGTTT-GGCTGGGGCGGAAAA-CTGCTACACGGCAA
Pan3_3	ATTT-GTGTTAGGGAGTTT-GGCTGGGGCGGAAAA-CTGCTACACGGCAA
Hon1_7	ATTT-GTGTTAGGGAGTTT-GGCTGGGGCGGAAAA-CTGCTACACGGCAA
CUR1_4	ATTT-GTGTTAGGGAGTTT-GGCTGGGGCGGAAAACTGCTACACGGCAA
HA4_1	ATTT-GTGTTGGGGAGTTT-GGCTGGGGCGGAAAA-CTGCTACACGGCAA
CR19_1	ATTTGTGTTAGGGAGTTTGGCTGGGGCGGAAAA-CTGCTACACGGCAA
CR8_1	ATTT-GTGTTAGGGAGTTT-GGCTGGGGCGGAAAA-CTGCTACACGGCAA
Fr_K7	ATCT-GTGTTGGGGAGTTT-GGCTGGGGCGGAAAA-CTGCTACACGGCAA
Fr_K15	ATCT-GTGTTGGGGAGTTT-GGCTGGGGCGGAAAA-TTGCTACACGGCAA
It_K64	ATCT-GTGTTGGGGAGTTT-GGCTGGGGCGGAAAA-CTGCTACACGGCAA
It_K80	ATCT-GTGTTGGGGAGTTT-GGCTGGGGCGGAAAA-CTGCTACACGGCAA
Uk_K77	ATCT-GTGTTGGGGAGTTT-GGCTGGGGCGGAAAA-CTGCTACACGGCAA
It_IG45	ATCT-GTGTTGGGGAGTTT-GGCTGGGGCGGAAAA-CTGCTACATGGCAA
CR10	ATTT-GTGTTGGGGAGTTT-GGCTGGGGCGGAAAA-CTGCTACACGGCAA
It_K61	ATCT-GTGTTGGGGAGTTT-GGCTGGGGCGGAAAA-CTGCTACACGGCAA
Uk_K78	CTCT-GTGTTGGGGAGTTT-GGCTGGGGCGGAAAA-CTGCTACACGGCAA
Uk_K93	ATCT-GTGTTGGGGAGTTT-GGCTGGGGCGGAAAA-CTGCTACACGGCAA
It_IG46	ATCT-GTGTTGGGGAGTTT-GGCTGGGGCGGAAAA-CTGCTACACGGCAA
Pr3_1	ATCT-GTGTTGGGGAGTTT-GGCTGGGGCGGAAAA-CTGCTACACGGCAA
It_K56	CTCT-GTGTTGGGGAGTTT-GGCTGGGGCGGAAAA-CTGCTACACGGCAA
Fr_K10	ATCT-GTGTTGGGGAGTTT-GGCTGGGGCGGAAAA-CTGCTACACGGCAA
Fr_K12	CTCT-GTGTTGGGGAGTTT-GGCTGGGGCGGAAAA-CTGCTACACGGCAA
Fr_M26	ATCT-GTGTTGGGGAGTTT-GGCTGGGGCGGAAAA-CTGCTACACGGCAA
It_K66	ATCT-GTGTTGGGGAGTTT-GGCTGGGGCGGAAAA-CTGCTACACGGCAA
Uk_K79	ATCT-GTGTTGGGGAGTTT-GGCTGGGGCGGAAAA-CTGCTACACGGCAA
Mx_K30	ATCT-GTGTTGGGGAGTTT-GGCTGGGGCGGAAAA-CTGCTACACGGCAA
It_IG50	ATCT-GTGTTGGGGAGTTT-GGCTGGGGCGGAAAA-CTGCTACACGGCAA
It_K68	ATCT-GTGTTGGGGAGTTT-GGCTGGGGCGGAAAA-CTGCTACACGGCAA
Uk_K86	CTCT-GTGTTGGGGAGTTT-GGCTGGGGCGGAAAA-CTGCTACACGGCAA
It_K52	ATCT-GTGTTGGGGAGTTT-GGCTGGGGCGGAAAC-CTGCTACACGGCAA
Fr_K18	CTCT-GTGTTGGGGAGTTT-GGCTGGGGCGGAAAA-CTGCTACACGGCAA
It_K71	ATCT-GTGTTGGGGAGTTT-GGCTGGGGCGGAAAA-CTGCTACACGGCAA
It_K62	ATCT-GTGTTGGGGAGTTT-GGCTGGGGCGGAAAA-CTGCTACACGGCAA
It_K63	ATCT-GTGTTGGGGAGTTT-GGCTGGGGCGGAAAA-CTGCTACACGGCAA
No_K94	ATTT-GTGTTGGGGAGTTT-GGCTGGGGCGGAAAA-CTGCTACACGGCAA
Ppolycephalum	ATCT-ATGTTGGGGAGTTT-GGCTGGGGCGGAAAA-CTGCTACACGGCAA

Pan1_66	CGGCAGTCTCCTAAGGTTCACTCAGAGACGACAGAAACGTCTCGTAGAGC
Pan2	CGGCAGTCTCCTAAGGTTCACTCAGAGACGACAGAAACGTCTCGTAGAGC
Pan3_3	CGGCAGTCTCCTAAGGTTCACTCAGAGACGACAGAAACGTCTCGTAGAGC
Hon1_7	CGGCAGTCTCCTAAGGTTCACTCAGAGACGACAGAAACGTCTCGTAGAGC
CUR1_4	CGGCAGTCTCCTAAGGTCCACTCAGAGACGACAGAAACGTCTCGTAGAGC
HA4_1	CGGCAGTCTCCTAAGGTCCACTCAGAGACGACAGAAACGTCTCGTAGAGC
CR19_1	CGGCAGTCTCCTAAGGTCCACTCAGAGACGACAGAAACGTCTCGTAGAGC
CR8_1	CGGCAGTCTCCTAAGGTTCACTCAGAGACGACAGAAACGTCTCGTAGAGC
Fr_K7	CGGCAGTCTCCTAAGGTCCACTCAGAGACGACAGAAACGTCTCGTAGAGC
Fr_K15	CGGCAGTCTCCTAAGGTCCACTCAGAGACGACAGAAACGTCTCGTAGAGC
It_K64	CGGCAGTCTCCTAAGGTCCACTCAGAGACGACAGAAACGTCTCGTAGAGC
It_K80	CGGCAGTCTCCTAAGGTCCACTCAGAGACGACAGAAACGTCTCGTAGAGC
Uk_K77	CGGCAGTCTCCTAAGGTCCACTCAGAGACGACAGAAACGTCTCGTAGAGC
It_IG45	CGGCAGTCTCCTAAGGTCCACTCAGAGACGACAGAAACGTCTCGTAGAGC
CR10	CGGCAGTCTCCTAAGGTCCACTCAGAGACGACAGAAACGTCTCGTAGAGC
It_K61	CGGCAGTCTCCTAAGGTCCACTCAGAGACGACAGAAACGTCTCGTAGAGC
Uk_K78	CGGCAGTCTCCTAAGGTCCACTCAGAGACGACAGAAACGTCTCGTAGAGC
Uk_K93	CGGCAGTCTCCTAAGGTCCACTCAGAGACGACAGAAACGTCTCGTAGAGC
It_IG46	CGGCAGTCTCCTAAGGTCCACTCAGAGACGACAGAAACGTCTCGTAGAGC
Pr3_1	CGGCAGTCTCCTAAGGTCCACTCAGAGACGACAGAAACGTCTCGTAGAGC
It_K56	CGGCAGTCTCCTAAGGTCCACTCAGAGACGACAGAAACGTCTCGTAGAGC
Fr_K10	CGGCAGTCTCCTAAGGTCCACTCAGAGACGACAGAAACGTCTCGTAGAGC
Fr_K12	CGGCAGTCTCCTAAGGTCCACTCAGAGACGACAGAAACGTCTCGTAGAGC
Fr_M26	CGGCAGTCTCCTAAGGTCCACTCAGAGACGACAGAAACGTCTCGTAGAGC
It_K66	CGGCAGTCTCCTAAGGTCCACTCAGAGACGACAGAAACGTCTCGTAGAGC
Uk_K79	CGGCAGTCTCCTAAGGTCCACTCAGAGACGACAGAAACGTCTCGTAGAGC
Mx_K30	CGGCAGTCTCCTAAGGTCCACTCAGAGACGACAGAAACGTCTCGTAGAGC
It_IG50	CGGCAGTCTCCTAAGGTCCACTCAGAGACGACAGAAACGTCTCGTAGAGC
It_K68	CGGCAGTCTCCTAAGGTCCACTCAGAGACGACAGAAACGTCTCGTAGAGC
Uk_K86	CGGCAGTCTCCTAAGGTCCGCTCAGAGACGACAGAAACGCCTCGTAGAGC
It_K52	CGGCAGTCTCCTAAGGTCCGCTCAGAGACGACAGAAACGCCTCGTAGAGC
Fr_K18	CGGCAGTCTCCTAAGGTCCGCTCAGAGACGACAGAAACGCCTCGTAGAGC
It_K71	CGGCAGTCTCCTAAGGTCCGCTCAGAGACGACAGAAACGCCTCGTAGAGC
It_K62	CGGCAGTCTCCTAAGGTCCGCTCAGAGACGACAGAAACGCCTCGTAGAGC
It_K63	CGGCAGTCTCCTAAGGTCCGCTCAGAGACGACAGAAACGCCTCGTAGAGC
No_K94	CGGCAGTCTCC-AAGGTCCACTCAGAGACGACAGAAACGTCTCGTAGAGC
Ppolycephalum	CGGCAGTCTCCTAAGGTCCACTCAGAGACGACAGAAACGTCTCGTAGAGC

Pan1_66	ATAAGGGCAAAAGTGAGCTTAACTCACATTTTCAGTAGTAATGTGAAGCA
Pan2	ATAAGGGCAAAAGTGAGCTTAACTCACATTTTCAGTAGTAATGTGAAGCA
Pan3_3	ATAAGGGCAAAAGTGAGCTTAACTCACATTTTCAGTAGTAATGTGAAGCA
Hon1_7	ATAAGGGCAAAAGTGAGCTTAACTCACATTTTCAGTAGTAATGTGAAGCA
CUR1_4	ATAAGGGCAAAAGTGGGCTTAACTCACATTTTCAGTAGTAATGTGAAGCA
HA4_1	ATAAAGGCAAAAGTGGGCTTAACTTACATTTTCAGTAGTAATGTGAAGCA
CR19_1	ATAAAGGCAAAAGTGGGCTTAACTTACATTTTCAGTAGTAATGTGAAGCA
CR8_1	ATAAAGGCAAAAGTGAGCTTAACTCACATTTTCAGTAGTAATGTGAAGCA
Fr_K7	ATAAAGGCAAAAGTGGGCTTAACTTACATTTTCAGTAGTAATGTGAAGCA
Fr_K15	ATAAAGGCAAAAGTGGGCTTAACTTACATTTTCAGTAGTAATGTGAAGCA
It_K64	ATAAAGGCAAAAGTGGGCTTAACTTACATTTTCAGTAGTAATGTGAAGCA
It_K80	ATAAAGGCAAAAGTGGGCTTAACTTACATTTTCAGTAGTAATGTGAAGCA
Uk_K77	ATAAAGGCAAAAGTGGGCTTAACTTACATTTTCAGTAGTAATGTGAAGCA
It_IG45	ATAAAGGCAAAAGTGGGCTTAACTCGCATTTTCAGTAGTAATGTGAAGCA
CR10	ATAAAGGCAAAAGTGGGCTTAACTTACATTTTCAGTAGTAATGTGAAGCA
It_K61	ATAAAGGCAAAAGTGGGCTTAACTCGCATTTTCAGTAGTAATGTGAAGCA
Uk_K78	ATAAAGGCAAAAGTGGGCTTAACTTACATTTTCAGTAGTAATGTGAAGCA
Uk_K93	ATAAAGGCAAAAGTGGGCTTAACTCGCATTTTCAGTAGTAATGTGAAGCA
It_IG46	ATAAAGGCAAAAGTGGGCTTAACTTACATTCTCAGTAGTAATGTGAAGCA
Pr3_1	ATAAAGGCAAAAGTGGGCTTAACTTACATTCTCAGTAGTAATGTGAAGCA
It_K56	ATAAAGGCAAAAGTGGGCTTAACTTACATTTTCAGTAGTAATGTGAAGCA
Fr_K10	ATAAAGGCAAAAGTGGGCTTAACTCGCATTTTCAGTAGTAATGTGAAGCA
Fr_K12	ATAAAGGCAAAAGTGGGCTTAACTTACATTTTCAGTAGTAATGTGAAGCA
Fr_M26	ATAAAGGCAAAAGTGGGCTTAACTCGCATTTTCAGTAGTAATGTGAAGCA
It_K66	ATAAAGGTAAAAGTGGGCTTAACTCGCATTTTCAGTAGTAATGTGAAGCA
Uk_K79	ATAAAGGCAAA-GTGGGCTTAACTCGCATTTTCAGTAGTAATGTGAAGCA
Mx_K30	ATAAAGGCAAAAGTGGGCTTAACTTACATTCTCAGTAGTAATGTGAAGCA
It_IG50	ATAAAGGCAAAAGTGGGCTTAACTTACATTCTCAGTAGTAATGTGAAGCA
It_K68	ATAAAGGCAAAAGTGGGCTTAACTCGCATTTTCAGTAGTAATGTGAAGCA
Uk_K86	ATAAAGGCAAAAGCGGGCTTAACTTACATTTTCAGTAGTAATGTGAAGCA
It_K52	ATAAAGGCAAAAGCGGGCTTAACTTACATTTTCAGTAGTAATGTGAAGCA
Fr_K18	ATAAAGGCAAAAGCGGGCTTAACTTACATTTTCAGTAGTAATGTGAAGCA
It_K71	ATAAAGGCAAAAGCGGGCTTAACTTACATTTTCAGTAGTAATGTGAAGCA
It_K62	ATAAAGGCAAAAGCGGGCTTAACTTACATTTTCAGTAGTAATGTGAAGCA
It_K63	ATAAAGGCAAAAGCGGGCTTAACTTACATTTTCAGTAGTAATGTGAAGCA
No_K94	ATAAAGGCAAAAGTGGGCTTAACTTACATTCTCAGTAGTAATGTGAAGCA
Ppolycephalum	ATAAAGGCAAAAGTGGGCTTAACTCGCATTTTCAGTAGTAATGTGAAGCA

Pan1_66	AGAAATTGAGGCCTAACGATCCTTAACGGCGGGTGCCAGCCCACGTTTGA
Pan2	AGAAATTGAGGCCTAACGATCCTTAACGGCGGGTGCCAGCCCACGTTTGA
Pan3_3	AGAAATTGAGGCCTAACGATCCTTAACGGCGGGTGCCAGCCCACGTTTGA
Hon1_7	AGAAATTGAGGCCTAACGATCCTTAACGGCGGGTGCCAGCCCACGTTTGA
CUR1_4	AGAAATTGAGGCCTAACGATCCTTAACGGCGGGTGCCAGCCCACGTTTGA
HA4_1	AGAAATTGAGGCCTAACGATCCTTAACGTCGGGTGCCAGCCCACGTTTGA
CR19_1	AGAAATTGAGGCCTAACGATCCTTAACGGCGGGTGCCAGCCCACGTTTGA
CR8_1	AGAAATTGAGGCCTAACGATCCTTAACGGCGGGTGCCAGCCCACGTTTGA
Fr_K7	AGAAATTGAGGCCTAACGATCCTTAGCGTCGGGTGCCAGCCCGCGCTTGA
Fr_K15	AGAAATTGAGGCCTAACGATCCTTAGCGTCGGGTGCCAGCCCGCGCTTGA
It_K64	AGAAATTGAGGCCTAACGATCCTTAGCGACGGGTGCCAGCCCACGCTTGA
It_K80	AGAAATTGAGGCCTAACGATCCTTAGCGTCGGGTGCCAGCCCGCGCTTGA
Uk_K77	AGAAATTGAGGCCTAACGATCCTTAGCGTCGGGTGCCAGCCCGCGCTTGA
It_IG45	AGAAATTGCGGCTTAACGATCCTTAACGTCGGGTGCCAGCCCACGTTTGA
CR10	AGAAATTGAGGCCTAACGATCCTTAACGTCGGGTGCCAGCCCGCGTTTGA
It_K61	AGAAATTGAGGCTTAACGATCCTTAGCAGCGGGTGCCAGCCCATGCTTGA
Uk_K78	AGAAATTGAGGCCTAACGATCCTTAGCAGCGGGTGCCAGCCCAYGCTTGA
Uk_K93	GGAAATTGAGGCCTAACGATCCTTAGCAGCGGGTGCCAGCCCATGCTTGA
It_IG46	AGAAATTGAGGCCTAACGATCCTTAGCAGCGGGTGCCAGCCCATGCTTGA
Pr3_1	AGAAATTGAGGCTTAACGATCCTTAGCAGCGGGTGCCAGCCCATGCTTGA
It_K56	AGAAATTGAGGCCTAACGATCCTTAGCAGCGGGTGCCAGCCCAYGCTTGA
Fr_K10	AGAAATTGAGGCCTAACGATCCTTAGCAGCGGGTGCCAGCCCATGCTTGA
Fr_K12	AGAAATTGAGGCCTAACGATCCTTAGCAGCGGGTGCCAGCCCATGCTTGA
Fr_M26	AGAAATTGAGGCTTAACGATCCTTAGCAGCGGGTGCCAGCCCATGCTTGA
It_K66	AGAAATTGAGGCCTAACGATCCTTAGCAGCGGGTGCCAGCCCATGCTTGA
Uk_K79	AGAAATTGAGGCCTAACGATCCTTAGCAGCGGGTGCCAGCCCATGCTTGA
Mx_K30	AGAAATTGAGGCCTAACGATCCTTAGCGGCGGGTGCCAGCCCACGCTTGA
It_IG50	AGAAATTGAGGCTTAACGATCCTTAGCAGCGGGTGCCAGCCCATGCTTGA
It_K68	AGAAATTGAGGCCTAACGATCCTTAGCAGCGGGTGCCAGCCCAYGCTTGA
Uk_K86	AGAAATTGAGGCCTAACGATCCTTAGCGTCGGGTGCCAGCCCACGCTTGA
It_K52	AGAAATTGAGGCCTAACGATCCTTAGCGTCGGGTGCCAGCCCACGCTTGA
Fr_K18	AGAAATTGAGGCTTAACGATCCTTAGCGTCGGGTGCCAGCCCACGCTTGA
It_K71	AGAAATTGAGGCCTAACGATCCTTAGCGTCGGGTGCCAGCCCACGCTTGA
It_K62	AGAAATTGAGGCCTAACGATCCTTAGCGTCGGGTGCCAGCCCACGCTTGA
It_K63	AGAAATTGAGGCCTAACGATCCTTAGCGTCGGGTGCCAGCCCACGCTTGA
No_K94	AGAAATTGAGGCTTAACGGTCCTTAACGTCGGGTGCCAGCCCGCTTGA
Ppolycephalum	AGAAATTGCGGCTTAACGATCCTTAGCGGCGGGTGCCAGCCCACGCTTGA

Pan1_66	GGTGAGAGAAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCGT
Pan2	GGTGAGAGAAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCGT
Pan3_3	GGTGAGAGAAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCGT
Hon1_7	GGTGAGAGAAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCGT
CUR1_4	GGTGAGAGAAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCGT
HA4_1	GGTGAGAGAAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCGT
CR19_1	GGTGAGAGAAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCGT
CR8_1	GGTGAGAGAAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCGT
Fr_K7	GGTGAGAGAAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCGT
Fr_K15	GGTGAGAGAAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCGT
It_K64	GGTGAGAGAAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCGT
It_K80	GGTGAGAGAAAAAGT-----AACTGGCTTGTGGCCGCCAAGCGT
Uk_K77	GGTGAGAGAAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCGT
It_IG45	GGTGAGAGAAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCGT
CR10	GGTGAGAGAAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCGT
It_K61	GGTGAGAGAAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCGT
Uk_K78	GGTGAGAGAAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCGT
Uk_K93	GGTGAGAGAAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCGT
It_IG46	GGTGAGAGAAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCGT
Pr3_1	GGTGAGAGAAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCGT
It_K56	GGTGAGAGAAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCGT
Fr_K10	GGTGAGAGAAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCGT
Fr_K12	GGTGAGAGAAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCGT
Fr_M26	GGTGAGAGAAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCGT
It_K66	GGTGAGAGAAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCGT
Uk_K79	GGTGAGAGAAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCGT
Mx_K30	GGTGAGAGAAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCGT
It_IG50	GGTGAGAGAAAAAGT-----AACTGGCTTGTGGCCGCCAAGCGT
It_K68	GGTGAGAGAAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCGT
Uk_K86	GGTGAGAGAAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCGT
It_K52	GGTGAGAGAAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCGT
Fr_K18	GGTGAGAGAAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCGT
It_K71	GGTGAGAGAAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCGT
It_K62	GGTGAGAGAAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCGT
It_K63	GGTGAGAGAAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCGT
No_K94	GGTGAGAGAAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCGT
Ppolycephalum	GGTGAGAGAAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCGT

Pan1_66	TCATAGCGACGTGGC
Pan2	TCATAGCGACGTGGC
Pan3_3	TCATAGCGACGTGGC
Hon1_7	TCATAGCGACGTGGC
CUR1_4	TCATAGCGACGTGGC
HA4_1	TCATAGCGACGTGGC
CR19_1	TCATAGCGACGTGGC
CR8_1	TCATAGCGACGTGGC
Fr_K7	TCATAGCGACGTGGC
Fr_K15	TCATAGCGACGTGGC
It_K64	TCATAGCGACGTGGC
It_K80	TCATAGCGACGTGGC
Uk_K77	TCATAGCGACGTGGC
It_IG45	TCATAGCGACGTGGC
CR10	TCATAGCGACGTGGC
It_K61	TCATAGCGACGTGGC
Uk_K78	TCATAGCGACGTGGC
Uk_K93	TCATAGCGACGTGGC
It_IG46	TCATAGCGACGTGGC
Pr3_1	TCATAGCGACGTGGC
It_K56	TCATAGCGACGTGGC
Fr_K10	TCACAGCGACGTGGC
Fr_K12	TCATAGCGACGTGGC
Fr_M26	TCATAGCGACGTGGC
It_K66	TCATAGCGACGTGGC
Uk_K79	TCATAGCGACGTGGC
Mx_K30	TCATAGCGACGTGGC
It_IG50	TCATAGCGACGTGGC
It_K68	TCATAGCGACGTGGC
Uk_K86	TCATAGCGACGTGGC
It_K52	TCATAGCGACGTGGC
Fr_K18	TCATAGCGACGTGGC
It_K71	TCATAGCGACGTGGC
It_K62	TCATAGCGACGTGGC
It_K63	TCATAGCGACGTGGC
No_K94	TCATAGCGACGTGGC
Ppolycephalum	TCATAGCGACGTGGC