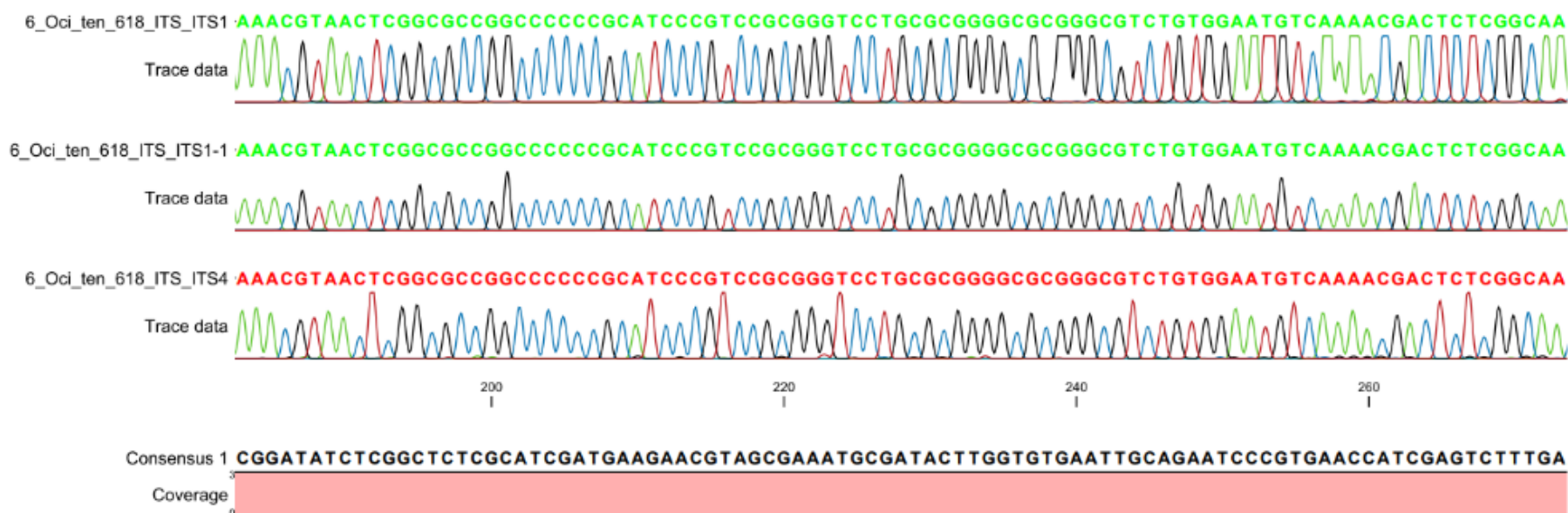


Supplementary material S1 – creating a contig

Section of a contig produced from three electropherograms of a reference *O. tenuiflorum* sample.

The electropherograms of three ITS sequences (one reverse ITS 4 and two forward ITS 1 reads) for reference sample G26.



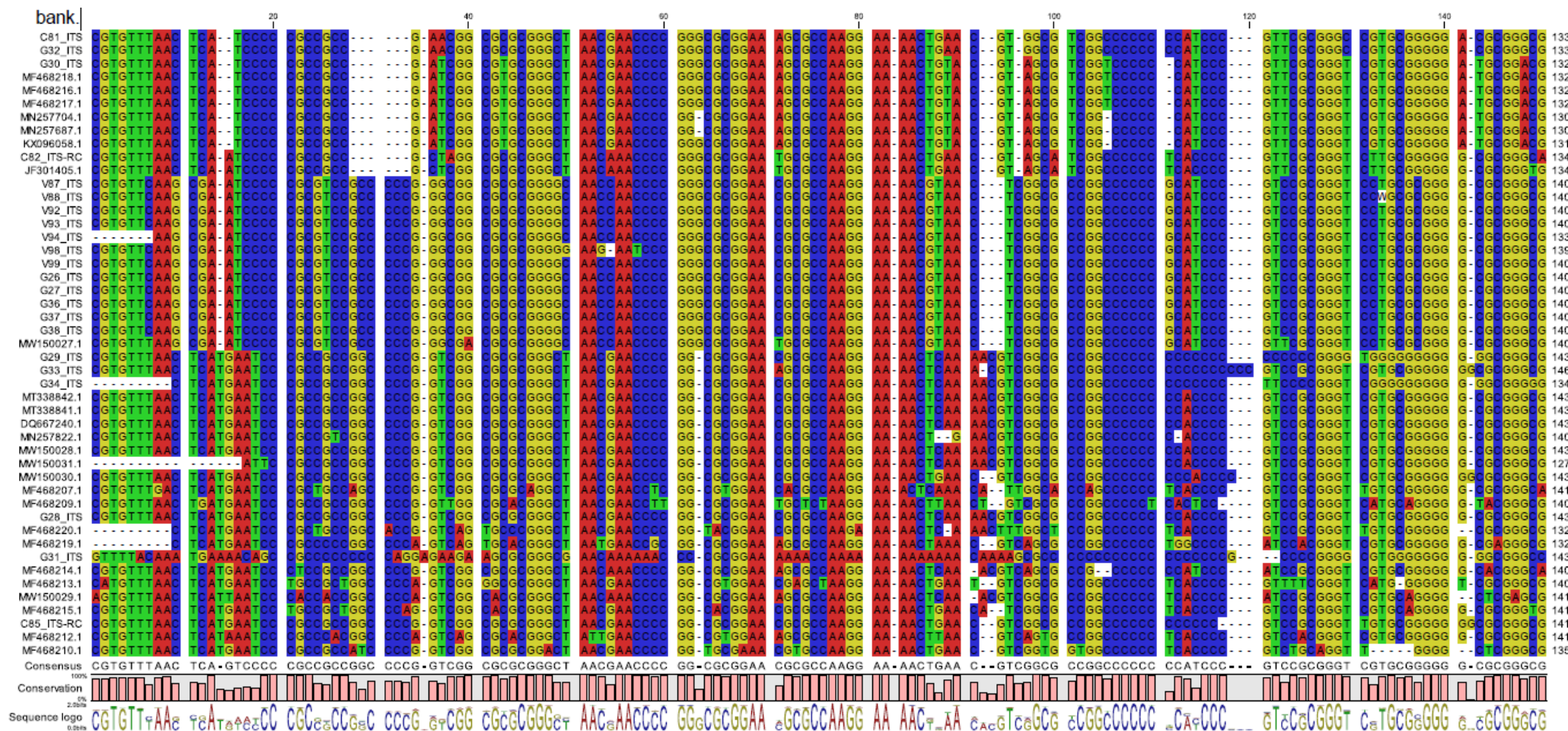
Supplementary material S2 – Multiple alignment of reference ITS sequences from reference sources and GenBank.

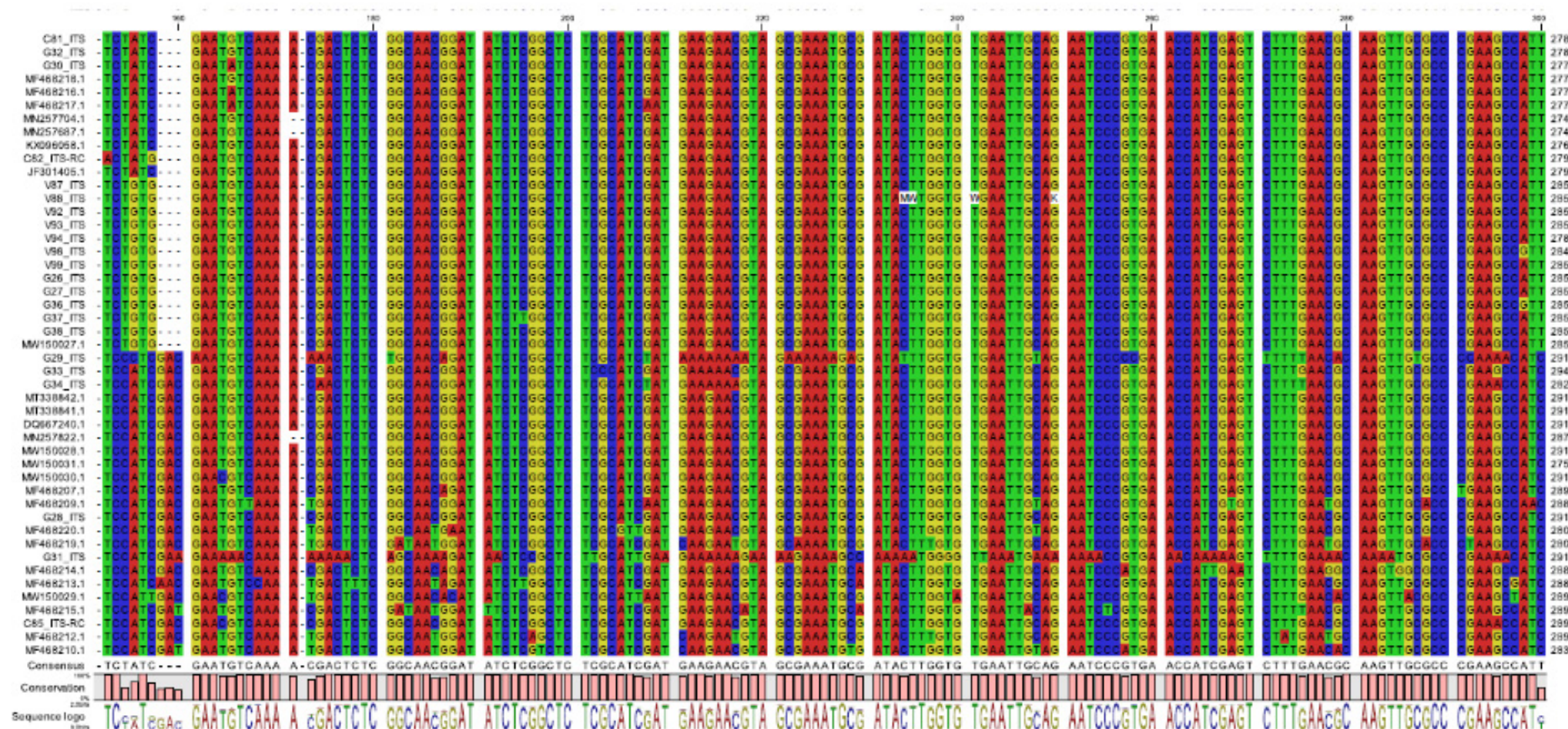
A multiple alignment showing different *Ocimum* samples aligned to illustrate similarities and differences in sequences obtained and from reference sources and Genbank.

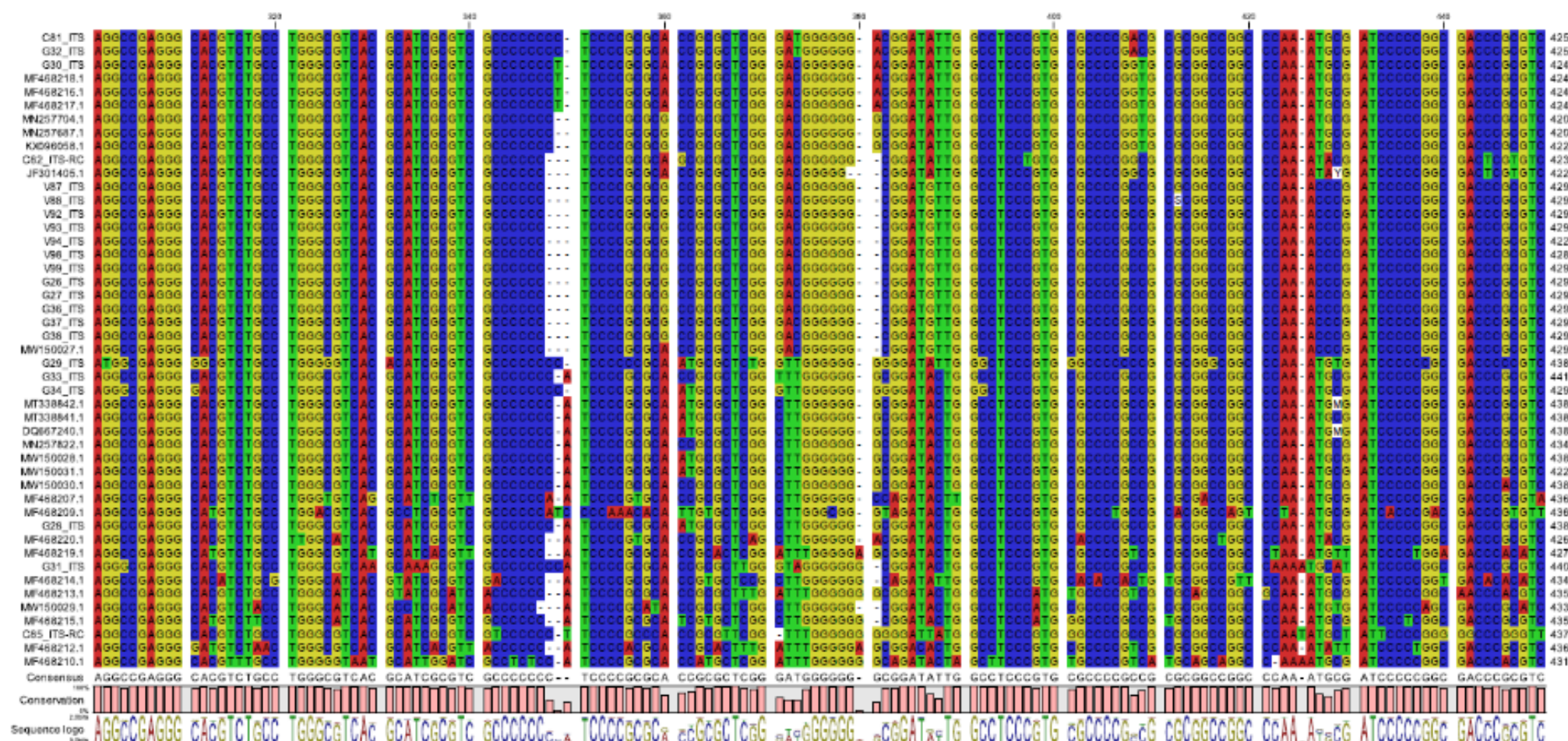
Key: letter of sample source*_reference number_barcode region

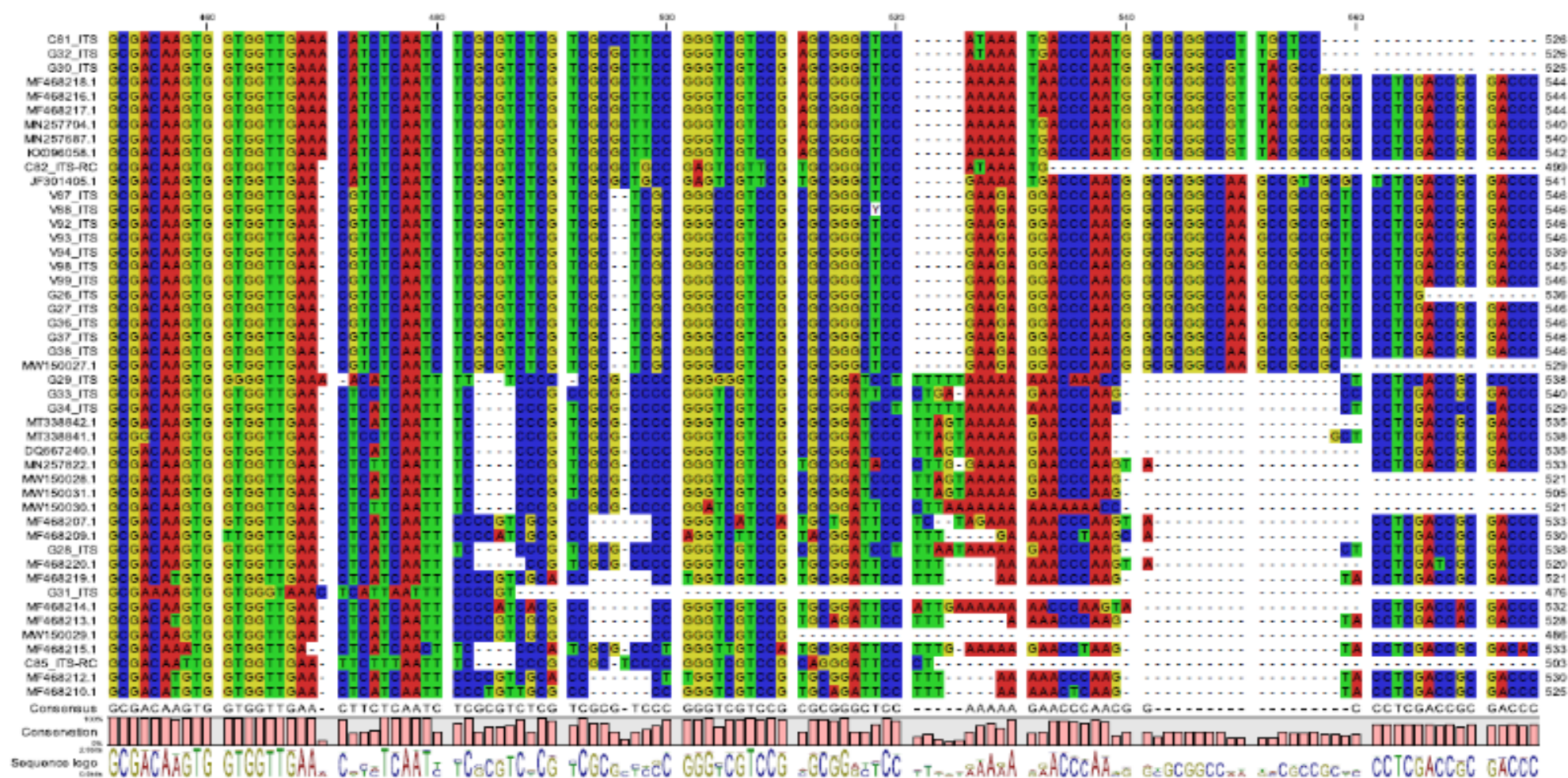
*G = Professor Peter Nick (Botanical Institute Karlsruhe Institute of Technology, Germany); V = Dr. Eike Reich (CAMAG Laboratory, Switzerland); C = The Royal Botanic Gardens

Kew – DNA bank.









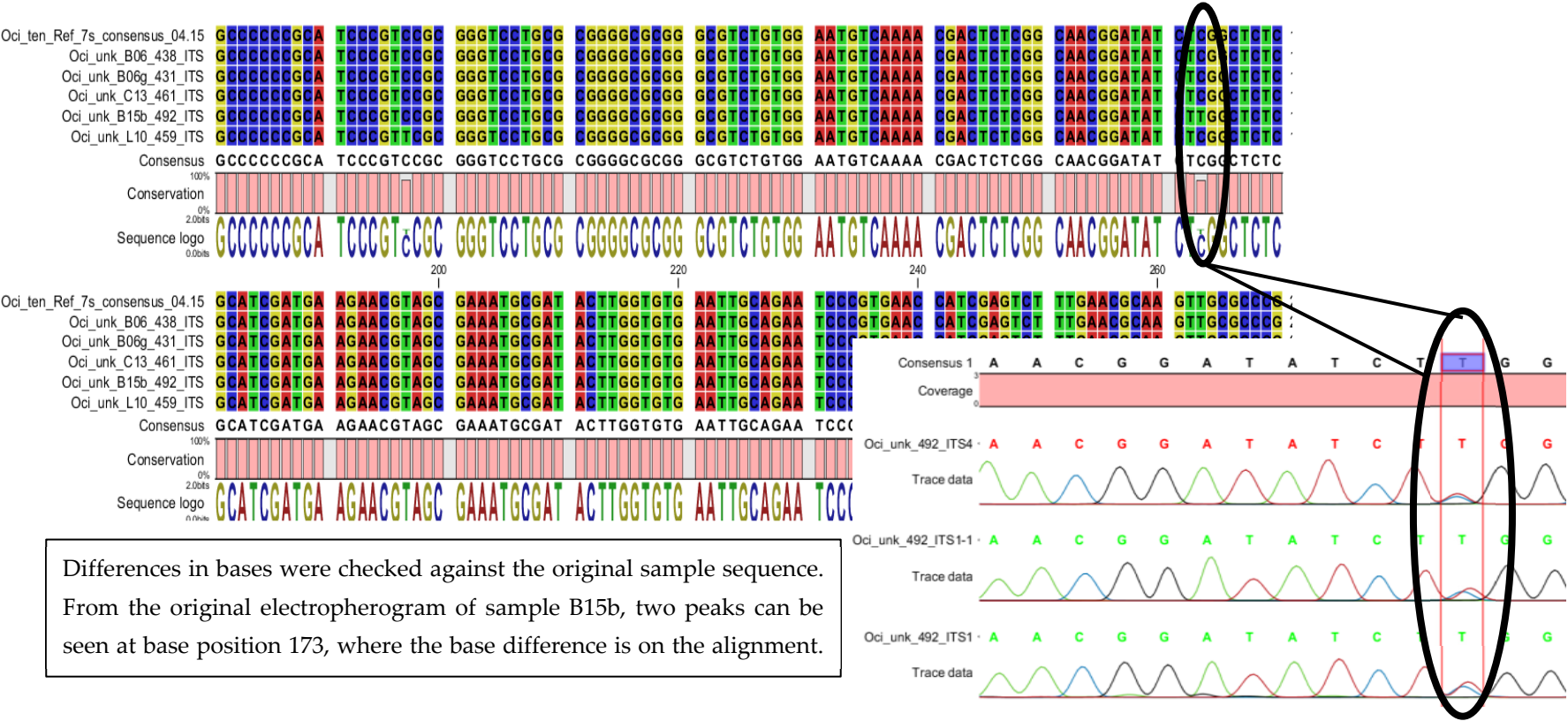
Supplementary material S3 – Multiple alignment of community Raam and Shyam Tulsi samples aligned with reference samples.

A section of a multiple alignment of community Raam and Shyam Tulsi samples aligned with reference *O. tenuiflorum* and *O. gratissimum* sequences (ITS region). The alignment highlights some of the key differences between *O. tenuiflorum* and *O. gratissimum* and how the two different community samples align with the reference sequences.




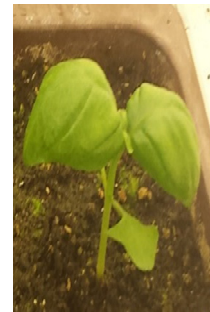
Supplementary material S4 – Multiple alignment of a reference *O. tenuiflorum* ITS sequence aligned with several unidentified Tulsi sample sequences

Section of a multiple alignment of a reference *O. tenuiflorum* ITS sequence aligned with several unidentified Tulsi sample sequences. The multiple alignment represents a reference *O. tenuiflorum* sequence (a consensus of seven different reference samples) aligned with several Tulsi samples for which the species were unknown (Oci_unk). Key: *Oci_unk_sample identification code_extraction number_region amplified*




Supplementary material S5 – Reference *Ocimum* sequences, nuclear internal transcribed spacer (ITS1 and ITS2)

All DNA extractions were conducted on fresh leaf samples, grown at De Montfort University. Seeds were obtained from the Botanical Institute Karlsruhe Institute of Technology, Germany. Sequences are consensus of three independent reads in the forward and reverse directions.

Species	Sample ID	DNA Sequence	Bp	Image
<i>Ocimum africanum</i>	G28	CGTGTTTAACTCATGAATCCCGCCGCCGGCCCCGGTCGGCGCGCGGGCTAA CGAACCCCGGCGCGGAACGCGCCAAGGAAAACCTCAAACGTCCGCGCCG GCCCCCCCCACCCCGTCCGCGGGTTCGTGCGGGGGGCGCGGGCGTCCATCGA CGAATGTCAAACGACTCTCGGCAACGGATATCTCGGCTCTCGCATCGATG AAGAACGTAGCGAAATGCGATACTTGGTGTGAATTGCAGAATCCCGTGAAC CATCGAGTCTTTGAACGCAAGTTGCGCCCCGAAGCCATCAGGCCGAGGGCAC GTCTGCCTGGGCGTCACGCATCGCGTCGCCCCCCCATCCCCGCGCAATGCG CTCGGCTTGGGGGGGCGGATACTGGCCTCCCGTGCGCCCGCCGCGCGGCC GGCCCCAAATGCGATCCCCCGGCGACCCGCGTCGCGACAAGTGGTGGTTGA ACTCATCAATTTCCCCGTCGCGCCCCGGGTCGTCCGCGCGGATCCTTTAATA AAAAGAACCCAAGCTCCTCGACCGCGACC	537	
<i>Ocimum basilicum</i>	G34	CTCATGAATCCCGCCGCCGGCCCCGGTCGGCGCGCGGGCTAACGAACCCCG GCGCGGAACGCGCCAAGGAAAACCTCAAACGTCCGCGCCGGCCCCCCCCC CCCCTTCCCCGGGTCCGGGGGGGGGGGGCGGGGGTCCATCGACGAATGTCA AAACAACCTCTCGGCAACGGATATCTCGGCTCTCGCATCTATGAAAAAAGTA GCGAAATGCGATACTTGGTGTGAATTGCAGAATCCCGTGAACCATCGAGTC TTTAAACGCAAGTTGCGCCCCGAAACCATCAGGGCGAGGGGACGTCTGCCTG GGCGTCACGCATCGCGTCGCCCCCCCCCTCCCCGCGCAATGCGCTCGGGTTG GGGGGGGGGATACTGGGCTCCCGTGCGCCCGCCGCGCGGCGGCCGCCCCAA TGCGATCCCCCGGCGACCCGCGTCGCGACAAGTGGTGGTTGAACTCATCAA TTCCCCGTCGCGCCCCGGGTTCGTCCGCGCGGATCCTTTTTTAAAAAAACC CAACCTCCTCGACCCCCACC	528	

<i>Ocimum citridorium</i>	G29	<p>CGTGTTTAACTCATGAATCCCGCCGCCGCCCCGGTCGGCGCGCGGGCTAA CGAACCCCGGCGCGGAACGCGCCAAGGAAAACCTCAAAACGTCGGCGCCG GCCCCCCCCCCCCCCCCCGGGGTGGGGGGGGGGGGCGGGCGTCCCTCG ACAAATGTCAAAAAAACTCTCTGCAACAGATATCTCGGCTCTCGCATCTAT AAAAAAAATAGAAAAAAGAGATATTTGGTGTGAATTGTAGAATCCCCGA ACCATCGAGTTTTTTAACACAAGTTGTGCCCCAAAACATCATGGCGAGGGG GCGTCTGCCTGGGGGTCACACATCGCGTCGCCCCCCCCCTCCCCCGCAATG CGCTCTGGTTGGGGGGGGGATATTGGGCTCCCGTGGGCCCCCCCCGCGCGG GCGGCCCAAATGTGATCCCCCGCGACCCCCGTCGCGACAAGTGGGGGTTG AAAACATCAATTTTTCCCCCGCGCCCCGGGGGGTCCGCGCGGATCCTTTTTT AAAAAAAACAAACCCTCCTCCACCGCCCCC</p>	538	
<i>Ocimum gratissimum</i>	G30	<p>CGTGTTTAACTCATCCCCGCCGCCGATCGGCGTGCGGGCTAACGAACCCC GGGCGCGGAAAGCGCCAAGGAAAACGTACGTAGCGTCGGTCCCCCATC CCGTTTCGCGGGTCGTGCGGGGGATGCGGACGTCTATCGAATATCAAAACGA CTCTCGGCAACGGATATCTCGGCTCTCGCATCGATGAAGAACGTAGCGAAA TGCGATACTTGGTGTGAATTGCAGAATCCCGTGAACCATCGAGTCTTTGAAC GCAAGTTGCGCCCCGAAGCCATTAGGCCGAGGGCACGTCTGCCTGGGCGTCA CGCATCGCGTCGCCCCCCCCTTCCCCGCGCACCGCGCTCGGGACGGGGGGAC GGATATTGGCCTCCCGTGCGCCCCGGTGCGCGGCCGGCCCAAATGCGATCC CCCGGCGACCCGCGTCGCGACAAGTGGTGGTTGAAACATCTCAATCTCGCG TCTCGTCGCGCTTCCGGGTCTCGAGCGGGCTCCAAAAATAACCCAATGG TGCGGCCGTTACGCC</p>	525	

<i>Ocimum kilimandscharicum</i>	G31	<p> GTTTTACAAATGAAAACAGCCGCCCCCCCCCAGGAGAAGAAGCGCGGGCG AACAAAAAACCCCGCGGAAAAAACCAAAAAAAAAAAAAACAAAAGCGCC CCCCCCCCCCCCCCCCCGCCCCGGGGCGTGGGGGGGGGGCGGGCCTCCATC GAAGAAAAACAAAAAAAACCTCAGCAAAAGATAACTCCGCTCTTGCAATTG AAGAAAAAGAAAAGAAAAGCCAAAAATGGGGTTAAATGAAAAAACCG TGAAACAAAAAGTTTTTGAAAACAAAATGCGCCCGAAAACATCAGGGCGA GGGCACGTCTGCCTGGGCGTCAAGCAAAGCGTCGCCCCCCCCATCCCCGCG CACCGCGCTTGGGTAGGGGGGGCGGATACTGGCCTCCCGTGCGCCCCGCCG CGCGGCCGGCCAAAATGCATATCCCCCGGCGACCCGCGTCGCGAAAAGTG GTGGGTAACTCATTAAATTTCCCCGT </p>	476	
<i>Ocimum tenuiflorum</i>	G26	<p> CGTGTTCAAGCGAATCCCCGCGTCCGCCCCCGGGCGGCGCGGGGCAA CCAACCCCGGGCGCGGAACGCGCCAAGGAAAACGTAACCTCGGCGCCGGCC CCCCGCATCCCGTCCGCGGGTCCTGCGCGGGGCGCGGGCGTCTGTGGAATG TCAAACGACTCTCGGCAACGGATATCTCGGCTCTCGCATCGATGAAGAAC GTAGCGAAATGCGATACTTGGTGTGAATTGCAGAATCCCGTGAACCATCGA GTCTTTGAACGCAAGTTGCGCCCGAAGCCATTAGGCCGAGGGCACGTCTGC CTGGGCGTCACGCATCGCGTCGCCCCCTCCCCGCGCGCCGCGCTCGGGAC GGGGGGCGGATGTTGGCCTCCCGTGCGCCCCGCGCGCGGCCGCCCCAAA CCCGATCCCCCGGCGACCCGCGTCGCGACAAGTGGTGGTTGAACGTCTCAA TCTCGCGTCTCGTCGCTCGCGGGCCGTCCGCGCGGGCTCCGAAGAGGACCC AACGGCGCGGCCAAGCCGCCGCTCCCTCGACCGCGACCC </p>	546	

*Images by S.K.Bhamra