Supplementary File S1

ITS rDNA Sequencing-Based Molecular Identification of *Fusarium odoratissimum*

Supplementary Description

• Molecular identification of the fungal isolate was performed through amplification and sequencing of the internal transcribed spacer (ITS) region of rDNA.

• Universal fungal primers ITS1 (5′-TCCGTAGGTGAACCTGCGG-3′) and ITS4 (5′-TCCTCCGCTTATTGATATGC-3′) were used for PCR amplification.

• The amplified PCR product was purified and subjected to Sanger dideoxy sequencing.

• Sequencing chromatograms were analyzed for sequence quality and assembled into a consensus sequence.

• The obtained ITS rDNA sequence was analyzed using the BLASTn tool available at the National Center for Biotechnology Information (NCBI) database.

• Sequence similarity analysis showed high homology with ***Fusarium odoratissimum*** sequences deposited in GenBank.

• The closest BLAST match obtained was ***Fusarium odoratissimum*** strain LC13762 (GenBank accession no. MW016596.1).

• Based on ITS rDNA sequence similarity analysis, the fungal isolate was identified as ***Fusarium odoratissimum***.

• ITS sequencing confirmed the taxonomic identity of the isolate as a lignin peroxidase (LiP)-producing fungal strain.

Database Information

NCBI BLASTn database was used for sequence similarity analysis and taxonomic identification.

Closest BLAST Match: ***Fusarium odoratissimum*** strain LC13762

GenBank Accession Number: MW016596.1

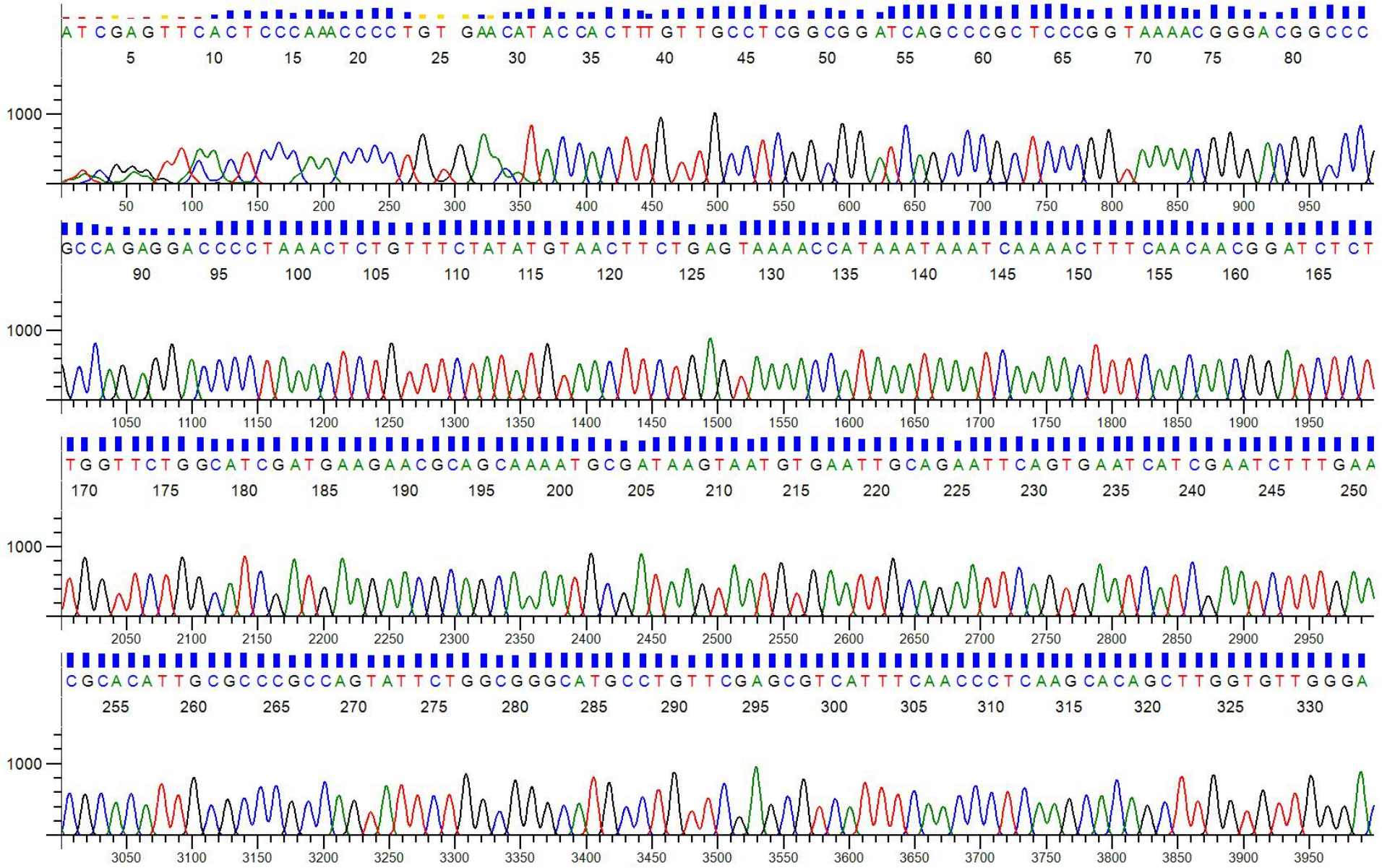
ITS rDNA Nucleotide Sequence

AJ_LiP_Isolate_ITS_rDNA_Sequence

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Molecular Identification Result

Molecular identification based on ITS rDNA sequencing and BLASTn analysis confirmed the fungal isolate as ***Fusarium odoratissimum***. The sequence showed high similarity to ***Fusarium odoratissimum*** strain LC13762 (GenBank accession MW016596.1), validating the taxonomic identity of the lignin peroxidase-producing isolate used in this study.



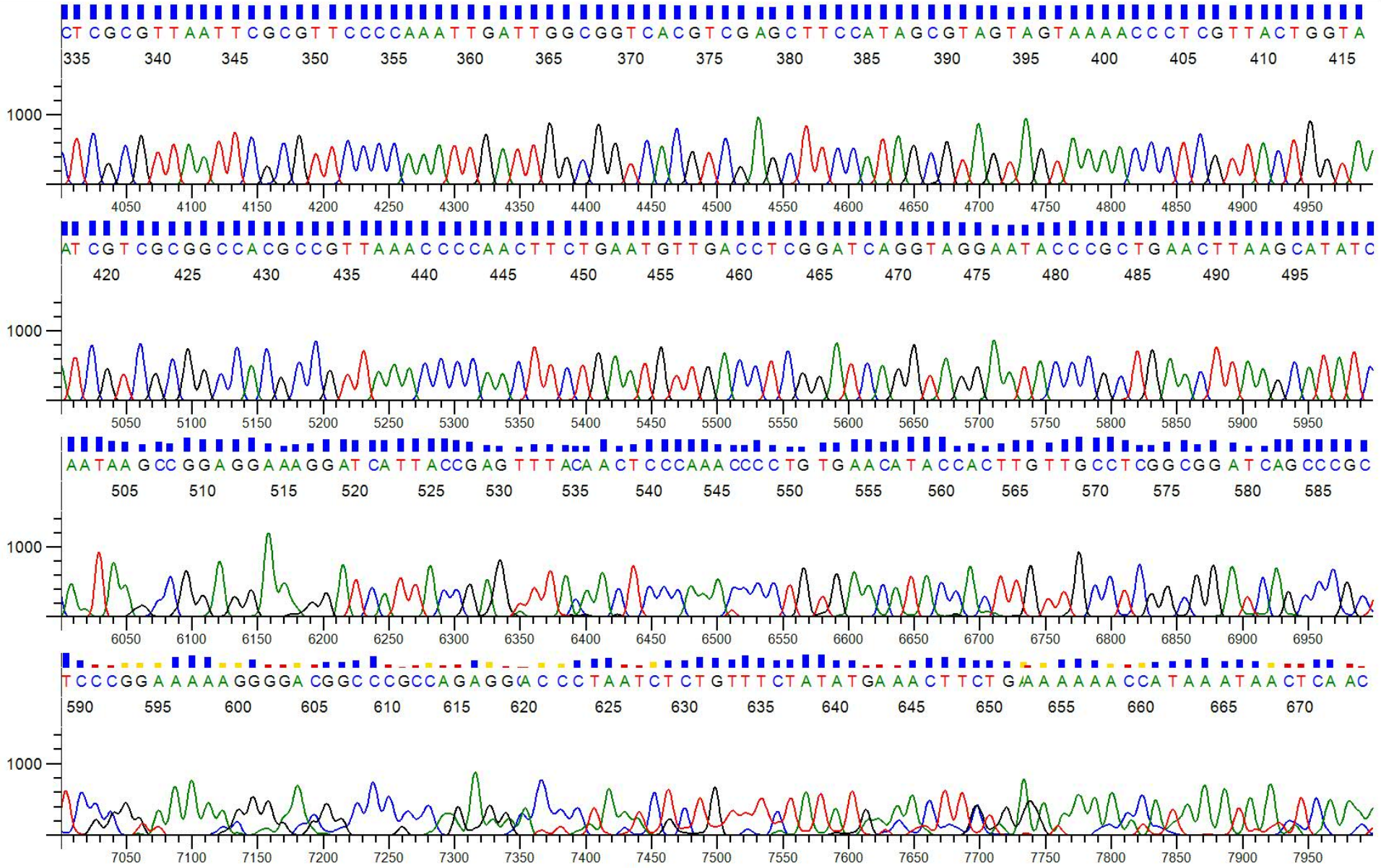
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Sequence Scanner Software 2 v2.0

Pure Base QVs: 15 20

Mixed Base QVs: 10 16

Printed on: May 14,2024 11:20:48 IST


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Applied Biosystems

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0424-921_P1_ITS1

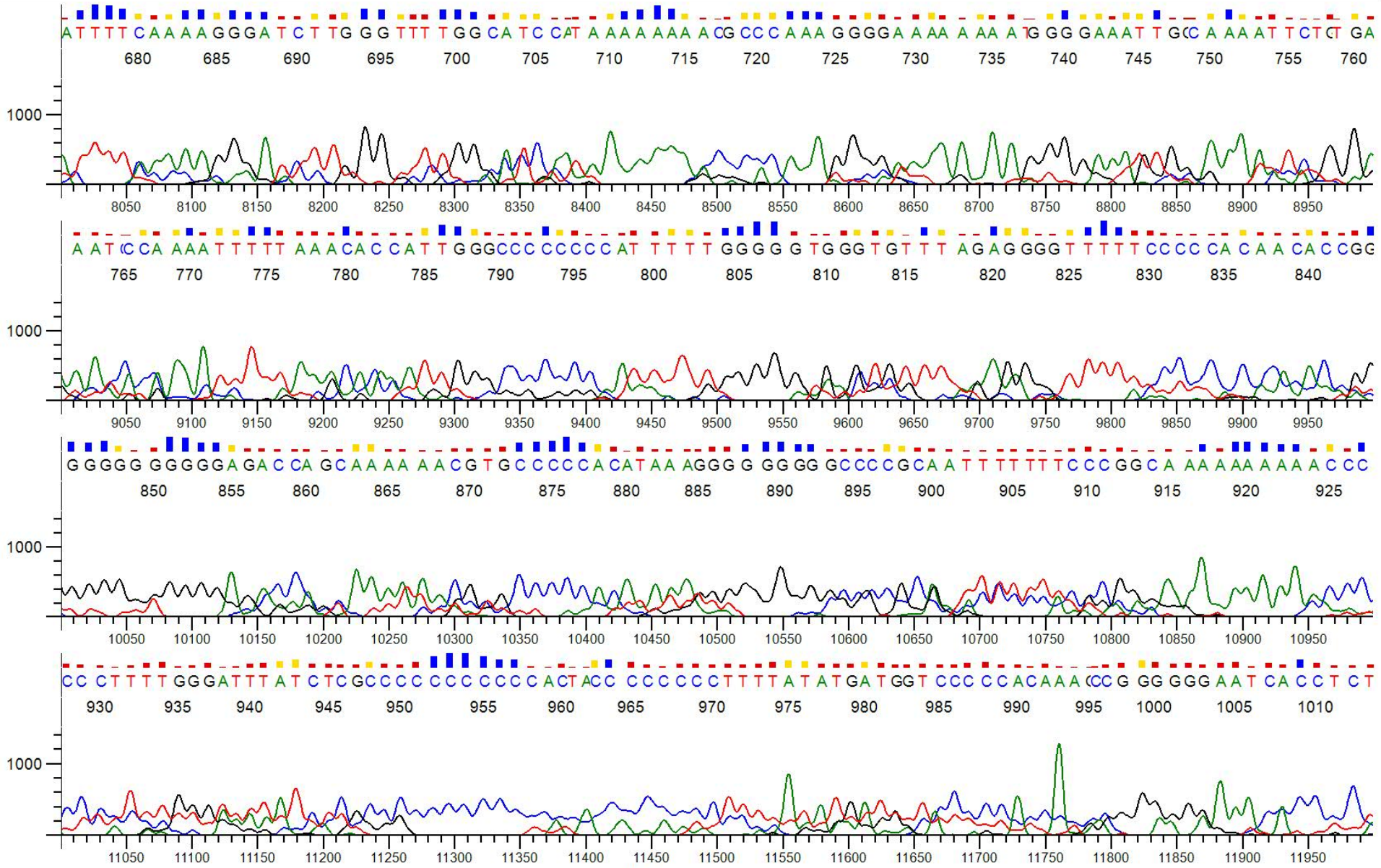
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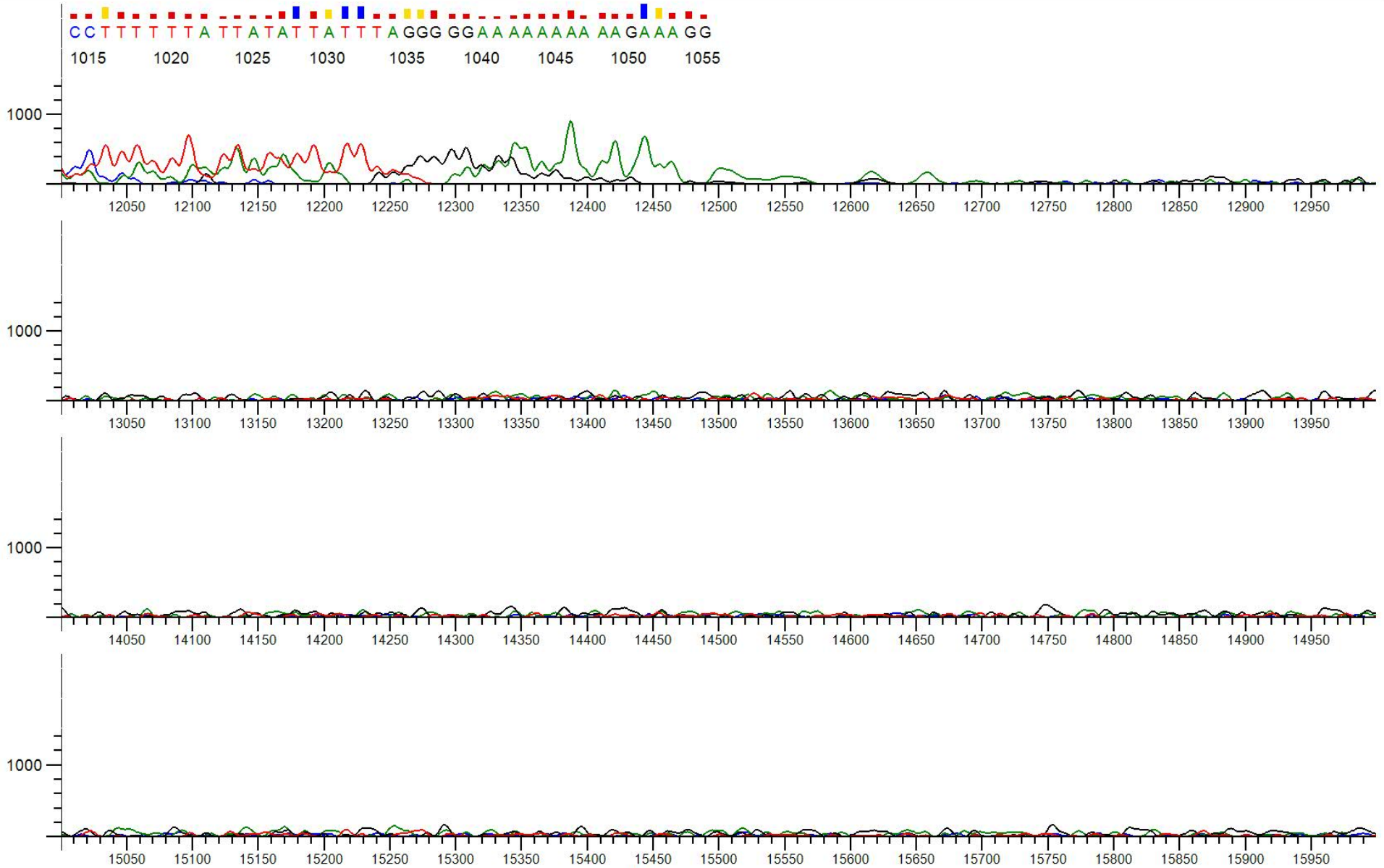
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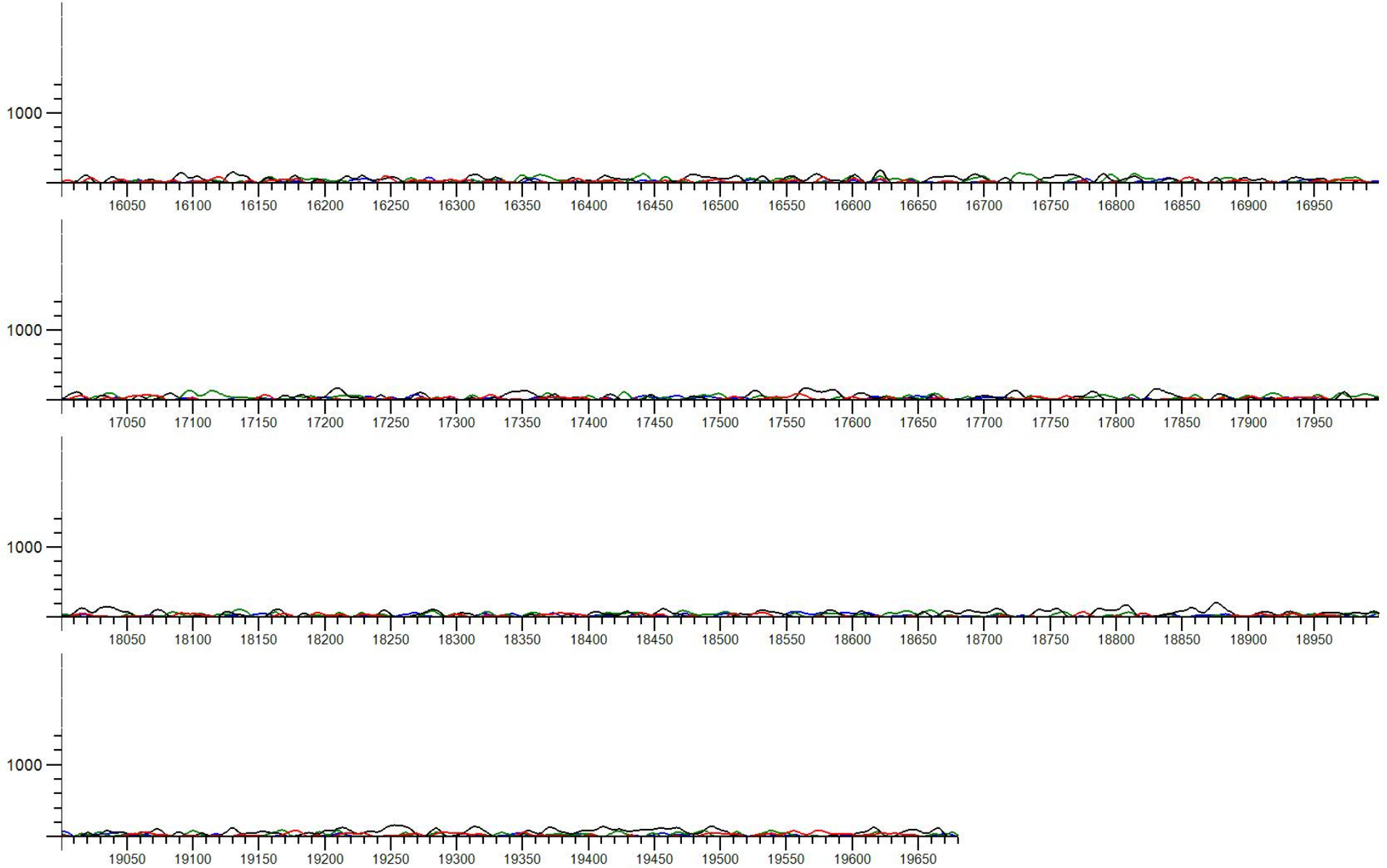
Sequence Scanner Software 2 v2.0

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