

Supplementary Data

Table S1A: ITS2 sequence matching results of isolates Ganoderma LVRB-1, Ganoderma LVRB-2, Ganoderma LVRB-14, Ganoderma LVRB-16 and Ganoderma LVRB-17 from the Lower Volta River Basin of Ghana

Species ID	DNA sequence	Sequence similarity (%) showing species of top matching candidate
Ganoderma LVRB-1	GCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCT TGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATGAAATCTTCAACTTGCAACCTCTTTGCGGAGTTTGTAGGC TTGGACTTGGAGGGCTTGTGCGCCTTTAACGGTCGGCTCCTCTTAAATGCATTAGCTTGATTCTTGCRGATCGGCTGTGCGGTG TGATAAAATGTCTACGCCGTGACCGTGAAGCGTTTGGATGAGCTTCcAACCGTCTTGsTTCAAAGACAACCTTTtATGACCTCTG ACCTCAAATCAGGTAGGACTACCCGCTGAACTTAAGCATATCAATAAGCGGAGGA	<i>Ganoderma enigmaticum</i> voucher Ghana1a/938398 99.49%
Ganoderma LVRB-2	GCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCT TGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATGAAATCTTCAACCTGCAAGCTTTTAATCGGTTTGTAGGCT TGGATTTGGAGGCTATTGTGCGCCTTTATCGGTCGGCTCCTCTTAAATGTATTAGCTTGTTTCCTTGCGGATCGGCTTGTGCGGT GTGATAATGTCTACGCCGCGACCGTGAAGCGTTTGGGCAAGCTTCTAACCGTCTCAGTTTAGAGACAACCTTATGACCTCTGA CCTCAAATCAGGTAGGACTACCCGCTGAACTTAAGCATATCAATAAGCGGAGGA	<i>Ganoderma mbrekobenum</i> voucher UMN7-4 GHA 100.00%
Ganoderma LVRB-14	GCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCT TGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATGAAATCTTCAACTTGCAACCTCTTTGCGGAGTTTGTAGGC TTGGACTTGGAGGGCTTGTGCGCCWTTAACGGTCGGCTCCTCTTAAATGCATTAGCTTGATTCTTGCGGATCGGCTGTGCGGT GTGATAAAATGTCTACGCCGTGACCGTGAAGCGTTTGGATGAGCTTCCAACCGTCTTGCTTCAAAGACAACCTTTTTATGACCTC TGACCTCAAATCAGGTAGGACTACCCGCTGAACTTAAGCATATCAATAAGCGGAGGA	<i>Ganoderma enigmaticum</i> voucher Ghana1a/938398 99.74%
Ganoderma LVRB-16	GCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCT TGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATGAAATCTTCAACTTGCAACCTCTTTGCGGAGTTTGTAGGC TTGGACTTGGAGGGCTTGTGCGCCWTTAACGGTCGGCTCCTCTTAAATGCATTAGCTTGATTCTTGCGGATCGGCTGTGCGGT GTGATAAAATGTCTACGCCGTGACCGTGAAGCGTTTGGATGAGCTTCcAACCGTCTTGCTTcAAaGACaACTTTtATGACCTCTG ACCTCAAATCAGGTAGGACTACCCGCTGAACTTAAGCATATCAATAAGCGGAGGA	<i>Ganoderma enigmaticum</i> voucher Ghana1a/938398 99.74%*
Ganoderma LVRB-17	GCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCT TGCGCTCCTTGGTATTCCGAGGAGCATGCCTGTTTGAGTGTCATGAAATCTTCAACCTGCAAGCTTTTAATCGGTTTGTAGGCT TGGATTTGGAGGCTATTGTGCGCCTTTATCGGTCGGCTCCTCTTAAATGTATTAGCTTGTTTCCTTGCGGATCGGCTTGTGCGGT GTGATAATGTCTACGCCGCGACCGTGAAGYGTTTGGGCAAGCTTCTAACCGTCTCAGTTTAGAGCAACCTTATGACCTCTGAC CTCAAATCAGGTAGGACTACCCGCTGAACTTAAGCATATCAATAAGCGGAGGA	<i>Ganoderma mbrekobenum</i> voucher UMN7-4 99.48%*

Table S1B: ITS sequence matching results of isolates of isolate Ganoderma LVRB-2 and Ganoderma LVRB-17 from the Lower Volta River Basin of GhanaITS2 sequence.

Species ID	DNA sequence	Sequence similarity (%) showing species of top matching candidate
Ganoderma LVRB-2	GTAAAAGTCGTAACAAGGTTTCCGTAGGTGAACCTGCGGAAGGATCATTATCGAGTTTTGACTGGGTTGTAGCTGGCCT TACGAGGCATGTGCACGCCCTGCTCATCCGCTCTACACCTGTGCACTTACTGTGGGTTACAGACGGTGAAGCGGGCTTC TTACGGGGAGCTTGTGAAGCGTGTCTGTGCCTGCGTTTACCACAAACTCTTTAAAGTATTAGAATGTGTATTGCGATGTA ACGCATCTATATACAACCTTTCAGCAACGGATCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATG TGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAGCAT	<i>Ganoderma mbrekobenum</i> voucher UMN7-4 GHA 99.49%
Ganoderma LVRB-17	GTAAAAGTCGTAACAAGGTTTCCGTAGGTGAACCTGCGGAAGGATCATTATCGAGTTTTGACTGGGTTGTAGCTGGCCT TCCGAGGCATGTGCACACCCTGCTCATCCACTCTACACCTGTGCACTTACTGTGGGTTCCAGACGTTGTGAAGCGGGCT CTTTACGGAGCTTGTAAAGCGGCGTGCCTGTGCCTGCGTTTATCACAAACTCTATAAAGTATTAGAATGTGTATTGCGAT GTAACGCATCTATATACAACCTTTCAGCAACGGCTCTTGGCTCTCGCATCGATGAAGAACGCAGCGAAATGCGATAAGTA ATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACCTTGCGCTCCTTGGTATTCCGAGGAG	<i>Ganoderma resinaceum</i> isolate F-2 99.48%

Table S1C: nLSU nucleotide sequence matching results of isolates Ganoderma LVRB-1, Ganoderma LVRB-2, Ganoderma LVRB-14, Ganoderma LVRB-16 and Ganoderma LVRB-17 from the Lower Volta River Basin of Ghana

Species ID	DNA sequence	Sequence similarity (%) showing species of top matching candidate
Ganoderma LVRB-1	GAGCGGTCCAATCAAGCGACGGCTCGTTCCTTACATATTTAAAGTTTGAGAATAGGTAAAGGTTGTTTCAACCCCAAGGCC TCTAATCATTGCTTTACACATAAATCTGATAATGAGTTTCTGCTATCCTGAGGGAACTTCGGCAGGAACCAGCTACTA GATGGTTCGATTAGTCTTTCGCCCCATACCCAAATTTGACGATCGATTTGCACGTCAGAATCGCTACGAGCCTCCACCAG AGTTTCCTCTGGCTTCACCTATTACAGGCATAGTTCACCATCTTTCGGGTCCCAACATACATGCTCTACCGCGGATCCGTC AGAGAACGTCAGGTCCGGGCGTCGATGCCCCCAGACAGGGGTCTCAACTTTCACCTTCATTACGCGCTCGGGTTTCC ACCCAAACACTCGCAGGTATGTTAGACTCCTTGGTCCGTGTTTCAAGACGGGTCGTTTAAAGCCATTATGCCAGCATCCTA AGCGCGAAAGTGGGATAAACCCTGCCTTACGGCGCGCTGCGTTCCTCGATCCCAACCGCCGTATGCGACCAGAGTCTAT AACACACCATAAGGTGCCACATTACTCCAGCCCTTTCCGACGGTCAAAATCGATGCTGACCCGTCAATCCGGAAAGTGC ACCAAGCAAAAAAGCAAGGCTGAGTTCGGGATGACGCGACTGACTTCAAGCGTTTCCCTTTCAGCAATTTACGTAAGTGT TTAACTCTCTTCCAAAGTGCTTTTCATCTTTCCTCACGGTACTTGTTTCGCTATCGGTCTCTCGCCAATATTTAGCTTTAG ATGGAATTCACCACCCATTTTGAGCTGCATTCCCAAACAACGACTCTTTGAGAGCGCATCACAAAGCACTGGTAGTCC GTGTCAAAGACGGGATTCTCACCTCTATGACGCTCTGTTCCAAGAGACTTATACACGGTCCAGCGCGGAAAGCACTTCT CCAGACTACAACCTCGGACGGCCAAAGACCGCCAGATTTTAAATTTGAGCTTTTCCCGCTTCACTCGCAGTTACTAGGGGA ATC	<i>Ganoderma enigmaticum</i> CBS 139792 99.90%
Ganoderma LVRB-2	TAAGCATATCAATAAGCGGAGGAAAAGAACTAACAAGGATTCCCCTAGTAACTGCGAGTGAAGCGGGAAAAGCTCAA ATTTAAATCTGGCGGTCTTTGGCCGTCCGAGTTGTAGTCTGGAGAAGTGCTTTCCGCGCTGGACCGTGTATAAGTCTCTT GGAACAGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGACACGGACTACCAGTGCTTTGTGATGCGCTCTCAAAGAGTCG AGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTGAATTCATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACA AGTACCGTGAGGGAAAGATGAAAAGCACTTTGGAAAGAGAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTT GAAGTCAGTCGCGTTGTCCGGAACCTCAGCCTTGCTTTGCTTGGTGCACCTTCCGGATGACGGGTCAGCATCGATTTTGAC CGTCGGAAAAGGGCTAGAGTAATGTGGCACCTTCGGGTGTGTTATAGACTCTGGTGCATACGGCGGTTGGGATCGAGG AACGCAGCGCGCCGTAAGGCAGGGGTTCTCCCACTTTCGCGCTTAGGATGCTGGCATAATGGCTTTAAACGACCCGTCT	<i>Ganoderma mbrekobenum</i> voucher UMN7-4 GHA 100.0%
Ganoderma LVRB-14	GATTCCCCTAGTAACTGCGAGTGAAGCGGGAAAAGCTCAAATTTAAATCTGGCGGTCTTTGGCCGTCCGAGTTGTAGTC TGGAGAAGTGCTTTCCGCGCTGGACCGTGTATAAGTCTCTTGAACAGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGA CACGGACTACCAGTGCTTTGTGATGCGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTGAATTC CATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAAGATGAAAAGCACTTTGGAAAGA GAGTTAAACAGTACGTGAAATTGCTGAAAAGGGAACGCTTGAAGTCAGTCGCGTCCGGAACCTCAGCCTTGCTTTTTT GCTTGGTGCACCTTCCGGATTGACGGGTCAAGCATGATTTTGACCGTCGGAAAAGGGCTGGAGTAATGTGGCACCTTATG GTGTGTTATAGACTCTGGTGCATACGGCGGTTGGGATCGAGGAACGACGCGCCGTAAGGCAGGGGTTTATCCCACTT TCGCGCTTAGGATGCTGGCATAATGGCTTTAAACGACCCGTCTTGAAACACGGACCAAGGAGTCAACATACCTGCGAGT GTTTGGGTGGAACCCGAGCGCGTAATGAAAGTGAAAGTTGAGACCCCTGTCGTGGGGGGCATCGACGCCCCGACCTG ACGTTCTCTGACGGATCCGCGGTAGAGCATGTATGTTGGGA	<i>Ganoderma enigmaticum</i> voucher Ghana1a/938398 100.00%

Ganoderma LVRB-16	<p>GATTCCCCTAGTAACTGCGAGTGAAGCGGGAAAAGCTCAAATTTAAAATCTGGCGGTCTTTGGCCGTCCGAGTTGTAGTC TGGAGAAGTGCTTTCCGCGCTGGACCGTGTATAAGTCTCTTGGAACAGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGA CACGGACTACCAAGTGCTTTGTGATGCGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTGAATTC CATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGCACTTTGGAAAGA GAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTCGTCCGGAACCTCAGCCTTGCTTTTTT GCTTGGTGCACCTTTCCGGATTGACGGGTGAGCATCGATTTTGACCGTCGGAAAAGGGCTGGAGTAATGTGGCACCTTATG GTGTGTTATAGACTCTGGTCGCATACGGCGGTTGGGATCGAGGAACGCAGCGCGCCGTAAGGCAGGGGTTTATCCCACTT TCGCGCTTAGGATGCTGGCATAATGGCTTTAAACGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATACCTGCGAGT GTTTGGGTGGAAAACCCGAGCGCGTAATGAAAGTGAAAGTTGAGACCCCTGTCGTGGGGGGCATCGACGCCCGGACCTG ACGTTCTCTGACGGATCCGCGGTAGAGCATGTATGTTGGGA</p>	<p><i>Ganoderma enigmaticum</i> CBS 139792 99.71%</p>
Ganoderma LVRB-17	<p>GATTCCCCTAGTAACTGCGAGTGAAGCGGGAAAAGCTCAAATTTAAAATCTGGCGGTCTTTGGCCGTCCGAGTTGTAGTC TGGAGAAGTGCTTTCCGCGCTGGACCGTGTATAAGTCTCTTGGAACAGAGCGTCATAGAGGGTGAGAATCCCGTCTTTGA CACGGACTACCAAGTGCTTTGTGATGCGCTCTCAAAGAGTCGAGTTGTTTGGGAATGCAGCTCAAAATGGGTGGTGAATTC CATCTAAAGCTAAATATTGGCGAGAGACCGATAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGCACTTTGGAAAGA GAGTTAAACAGTACGTGAAATTGCTGAAAGGGAAACGCTTGAAGTCAGTCGCGTCGTCCGGAACCTCAGCCTTGCTTTTTT GCTTGGTGCACCTTTCCGGATTGACGGGTGAGCATCGATTTTGACCGTCGGAAAAGGGCTGGAGTAATGTGGCACCTTATG GTGTGTTATAGACTCTGGTCGCATACGGCGGTTGGGATCGAGGAACGCAGCGCGCCGTAAGGCAGGGGTTTATCCCACTT TCGCGCTTAGGATGCTGGCATAATGGCTTTAAACGACCCGTCTTGAAACACGGACCAAGGAGTCTAACATACCTGCGAGT GTTTGGGTGGAAAACCCGAGCGCGTAATGAAAGTGAAAGTTGAGACCCCTGTCGTGGGGGGCATCGACGCCCGGACCTG ACGTTCTCTGACGGATCCGCGGTAGAGCATGTATGTTGGGA</p>	<p><i>Ganoderma resinaceum</i> voucher LGAM 566 100.00%</p>

