

**Supplementary Table 1.** Molecular markers used to the genotoxic characterization of the *Amanita rubescens* complex in Mexico.

<b>Toxin</b>	<b>Gene</b>	<b>Sequence</b>	<b>Reference</b>
$\alpha$ -amanitin	AMA	AMAF: 5'CCATCTGGGGTATCGGTTGC3'	Walton et al. 2004
		AMAR: 5'TTGGGATTGTGAGGTTTAGAGGTC3'	
Phalloidin	PHA	PHAF: 5'CGTCAACCGTCTCCTC3'	Hallen et al. 2007
		PHAR: 5'ACGCATGGGCAGTCTAC3'	
Regulator 1	POP1	POP1F: 5'GAAACGAGAGGGCGAAGTCAAGGTG3'	Luo et al. 2010
		POP1R: 5'AAGTGGATGACGATTATGCGGCAG3'	
Regulator 2	POP2	POP2F: 5'TCAAATGAAGTAGACGAATGGAC3'	Luo et al. 2010
		POP2R: 5'CACACGGATGAGCAATGGATGAG3',	
Nested 1	AMA	AMA1F: 5'CCCATTCGAACCTAACTCCAAGAC 3'	Hallen et al. 2007
		AMA1N: 5'CCTCTAAACCTCACAAATCCCAATG3'	
Nested 2	AMA	AMA2F: 5'GCCCAAGCCTGATAACGTCCACAACCT'3'	Hallen et al. 2007
		AMA2N: 5'TATCGCCCACTACTTCGTGTCATA3'	
Nested 1	PHA	PHA1F: 5'GACCTCTGCTCTAAATCACAATG3'	Hallen et al. 2007
		PHA1N: 5ATCAATGCCACCCGTCTTCCTG3'	
Nested 2	PHA	PHA2F: 5'CGGATCATTTACGTGGGTTTTTA3'	Hallen et al. 2007
		PHA2N: 5'AACTTGCCTTGACTAGTGGATGAGAC3'	

**Supplementary Table 2.** A) Nucleotide partial sequence of  $\alpha$ -amanitin (AMA) from GNHR9 Pachuca de Soto individual, B) partial gene of AMA from *Amanita* aff. *verna*, C) partial gene of AMA from *A. aff. virosa*, D) nucleotide partial sequence of phalloidin (PHA) from GNHR9 Pachuca de Soto individual, E) partial gene of PHA from *Amanita* aff. *verna*, F) partial gene of PHA from *A. aff. virosa*.

**A)**

5'CCAACAATCACAAATTCATGATATAGATGTCCGGCATCAACGCCAATCGTCGCGGGTATGGGGAATCAGCTACAACC  
CGTGCGTCGATTGTGGCGTGACCTAATCCTTGCTCGTCGCAAGGCGTAAGCTTATTCTTTGTCTAGTACAGTTCATTTGGA  
TCTACGCACTGTGACCTCGTCTTTGCTAAATACCTAATCCGTTGTCTACTGCTATGATATCGAAGGTACTGCCATCTCACT  
TCATAAATGGTACAATGGCA3'

**B)**

5'CCAACACCGGCTAGCCTCTTAGTTGAAGTGTCCGACATTAATGCACACATACGTCCAGGAGCGGAAGTCGGTTGCAACC  
CGTGCGACGTATGATGAAACTATCTAATTCGGTGTGCGTGGCAAGGCGTAAGCTTATTCTTTGTCTAGTACAGTTCATTTGG  
ACATACGCACTGTGACCTCGTCTTTGCTAAATACCAAATCGATTGTCTACTGCTAAGTAATTAAGGTACTGCCATCTCA  
CTTCATAGATGATGCATGGCAGTTGTCTGGATGTCGTTATCTA3'

**C)**

5'CCAACGATCACACACCTCTTTCGTGCAAGTGTCCGACATGTATGCAAACAATCGTACAGGAGCGGAAGTCGTCTGCAACC  
CGTGCGACGTCCGATGAAACTATCTAATTCGGTGTGCGTGGCAAGGCGTAAGCTTATTCTTTGTATAGTACAGTTCATTTG  
GATCTACGCACGTTGAGTCGGAGCTAAATACCAAATCCATTTGTCTACTGCGTTGTAATTAAGGTACTGCCATCTCACTT  
CATAGATGATGCGATGTCGTTATCCTAGTGGCAGTTGTCCTG3'

**D)**

5'ATGTCTGACATTAATGCTACTCGTCTTCCTGCTTTGGCTTGTAATTGCCCATGCGTCGGCCAAGATGTCAACCGTTTCCT  
CACTCTGGGCGAGAG3'

**E)**

5'ATGTCTGACATTAATGCTACTCGTCTTCCTGCTTTGGCTTGTAATTGCCCATCCATCGGCCAAGATGGCAACCGTTTCCT  
CACTTGGGGGAGAG3'

**F)**

5'ATGTCTGACATTAATGCTACTCGTCTCCCTGCTTTGGCCTGTAATTGCCACCCATCGGCCAGGATGTCAACCGTTTCCT  
CACTTTGTGGGAGAG3'