

Loss of *ZmLIPOXYGENASE4* Decreases *Fusarium verticillioides* Resistance in Maize Seedlings

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Table 1. Primer sequences for UFMu^{lox4} mutants genotyping.

UFMu ^{lox4} mutant	Primer pairs for ZmLOX4 WT allele	Primer pairs for UFMu insertion
UFMu12283	fD CAGTCATCATCGACTCATCGTT + rM ACAACTGTTCCATTCCATGTCC	TIR6 AGAGAAGCCAACGCCAWCGCCTCYATTTCGTC + fD CAGTCATCATCGACTCATCGTT
UFMu06517	fD CAGTCATCATCGACTCATCGTT + rM ACAACTGTTCCATTCCATGTCC	TIR6 AGAGAAGCCAACGCCAWCGCCTCYATTTCGTC + fD CAGTCATCATCGACTCATCGTT
UFMu03075	fI CCTATGGAAGATTGGAAGTCGA + rO GCCATCTCAATCGCATTGAATG	TIR6 AGAGAAGCCAACGCCAWCGCCTCYATTTCGTC + rO GCCATCTCAATCGCATTGAATG
UFMu10924	fL GTTTTGTGTGGTAGGGCTTGCGTT + rT TCCTGAGTAAGAATACTCACGTCC	TIR6 AGAGAAGCCAACGCCAWCGCCTCYATTTCGTC + rT TCCTGAGTAAGAATACTCACGTCC
UFMu03258	fC CTCTCAGTCATCATCGACTCAT + rT TCCTGAGTAAGAATACTCACGTCC	TIR6 AGAGAAGCCAACGCCAWCGCCTCYATTTCGTC + fC CTCTCAGTCATCATCGACTCAT

UFMu12283: primers: TIR6 + fD; sequenced with fD; sequence code FR07686683; transposon in blue.

GTACCTCTTTTTTTTCACCTTTTCGTATACACGTCGCTGTCGCCTCCATCGCTGGGCTGGCAAGAGAACGCGAGGC
GAAGCAGCCGCGGCCCGCCCGCTATTTATCGCGAGATAATTGCCATTATGGACGAAGAGAGGAGGTGATTCTGA
CGAAATGGAGGCGTTGGCGTTGGCTTCTCACAGATGTTAAGGTTGTCAACTCGAGGGGGGCACCCTGGACCACA
CCTGGGCATCCACTCGTACGCCGTTTATGATTTTCTTCTTACAAAGGACCACTCACGGGCTTTTCCAACCCCCAG
CTATGGCTACGCTTCCCTTGTTGATGATATATTGCC

UFMu06517: primers: TIR6 + fD; sequenced with fD; sequence code FR07686686; transposon in blue.

GTCCGCTCTTTTTTTTCACCTTTTCGTATACACGTCGCTGTCGCCTCCATCGCTGGGCTGGCAAGAGAACGCGAGGC
GAAGCAGCCGCGGCCCGCCCGCTATTTATCGCGGGCTCGCGGCACAGGGCAGCGGCAGTTCCATACATACATA
CACCAACCGTGCGTGAAGGAAGGCCTTGTCTGCCGCCACATCACATTGGCAGGCGAGGCGAGGGAGCGAGCA
GCAGGGCAAGGCATCCACACCCACACCCACGAGATAATTGCCATTATAGACGAAGAGCGGACGGGATTCTGAC
GAAATGGAGGCGTTGGCTGAGCTTCTCTTGACG

UFMu03075: primers: TIR6 + rO; sequenced with rO; sequence code FR07686692; transposon in blue.

GGTAACTTACTTTTTTTTCACCTTTTCGTATACACGTCGCTGTCGCCTCCATCGCTGGGCTGGCAAGAGAACGCGA
GGCGAAGCAGCCGCGGCCCGCCCGCTATTTATCGCGAGATAATTGCCATTATGGACGAAGAGAGGAGGTGATT
CGACGAAATGGAGGCGTTGGCGTTGGCTTCTCACAGGCGGAGCTGCTGGTTAATCATACCTTTAAGTTGTCTGCA
AAAAGATGTCAGCGGAAGCGGCACCGCACAGGGCGGTTTGTGGTTGGTTCCCATTGATACCTTGCATAGTGCTA
GCTTCTTGATTAGATCCACGTAAAGCACACTGATGATCAAAGTCACCTACGTAACTTCCCATTAGCCCACACCT
CCTCCTCCAACGACTTATACATAAGCGTGCAATATTGAACTCCAAAAGACGGTAGATTGGAGTAATCCAAATTT
AGAAATGAACTTGTACGCGGTCTCCACTCGTGGACCCAGGTTGTTGGAAGTACACGTGGAGAGTGTACATTG
CATATTGTGATTCCCCAGAACACTTCAGTGTGACATCACTCTCTCCATAAAATATACTAGCTATCGATCCCCAT
CTGTAGATTAGTCACTGTGTAAGCTGACTCCGGACACCAGACATACTTCCCTGATACTGTGAGTAGACACGTTG
CTCTTGGTAGACCGGCACATAGGCTAGATGCGATGACGCAGACGATTTCGAGGGGTGATGAGCGCGCAGCGCA
TCTACCTCCTGAAGTTTGAAGTTATGTTTTATTTTCTAACTGTCGGTAGATCGAATAAGAGCTAGCAGCTCAGAGA
ATACTAGTTGACGA

UFMu10924: primers: TIR6 + rT; sequenced with rT; sequence code FR07686682; transposon in blue.

CGAGTACAAAAGACCGAGGGGAGAATACTCACGTCGTTGGCGAGAAGACGCGTTCCTGGGAGTAGAGATTGTG
CGGGTAGATCCACGAGTTGGCGACGAAGACGACGGTGCCCCTGCCGGGGACGCCCTCGAGGGTGAGCGACTTG
AGGAAGAACTCGGCGTGCTGCAGGTTCTGACCAGGACGGCGCCCGGGACGCCCTGCGACCCGTCCCACTCGA
AGCTCACCCGGTACAGAGATAATTGCCATTATAGACGAAGAGCGGACGGGATTTCGACGAAATGGAGGCGATGG
CGCGGCTTCTCAGTGCGTCCAGTTGAGAGAGAACATTATCAAGAAAAATGAGACAAGGCGGCTTAAATCTTATT
CTAGGCGGGAGGTGTTATTATCCCCGAGGCGGCACACAGCACAAAAGCTTGTAAGTTACTGTGCACCTCTCGGG
TAAAAGTTATGTGAAAAGTTTCATGTTTTAGGAACATTCTTCTTCTTCTGCTTAACATGTTGCTCCTTTTTTTC
TTGCTCTTCTTCTCGTCTTCCCACTTGTTCTTCCGTTTCTTATTTGAAGACAAAAAAACCGGAGTAAGAAGTG
CTGACTTCTCTTTCATGACTTTCTGACCACCTAATCATAGGTAATGTAGTAGCTACTGTTGCTTTTCTTCACTCCTC
CCCCATTATCATATTTTCGGTTTCTTCTATAACCAATTGTTCTTTCTGAACCTTGTAGGATGTGAATTGTTGCAGC

CAAAAACTTGTTGATTGAGTCTGGAAACGTCTCACTGATGAGGCCGCCCTTGCTTTTGAGTCTTCCACCACCT
AGATAAAACACACACTTGATGGATGGGCAAGCAGTAACTTGCCT

UFMu03258: primers: TIR6 + fC; sequenced with fC; sequence code FR07686690; transposon in blue.

GACTTCTTTTTCATTTCTGTCCGGGGTTCGGGTTCACAGTTCCAGTTACACTTGAGGGGTGGGCCCTATCGCC
CTCTCCATTCCATGCGGCCGGCTGTTTTTTTCGAGCAGTTTGCCCCACCACTCTTACCTGTAACATGTTCTTATT
ACACCGGAGGGCTGTGCTTGAACCCTTTGAGGCATGCTCTCCTGGTTAACAATTGCTTTGGTTGGTATGCCTTG
TGCATGTCAACGGACACTTTCACCTCACACATGCCTTTTAGACTGGATGGGATTGTAGACCACGGATACGTCAG
AATCGTTGAATGATTTATGGGAAGCACTCCGAACATCTTACCGTCACCATCATGATAAGAAATCCCCTGACTTTT
TCCATAAACGACTTATAAATCCTCGTGCCATATTGCACTATATAAGACCTTTCGTGGGAGTCAGACAATCTGGG
TAAGAACTTTAATGTGGTGGAAAACACTCACCAGCACGCTTTTAGAAATTAAGATCAAGACTGTACAGGGCATA
TGGAGATTTTTAAACTATTTGAGAGTGATACTCATTATACCCCACTCGTAGAATTGCTGCTACGTGATCTTTAGG
ATCAGCCGATGGACGAACACAGAAGAATCCCCCAACATAATCTCGCTGAGCATGTAGGCCGAGTCTTCCCCC
CTCCACACCCCAGGCAGTTTCGACACATAAGAGGTAGCTAAACAAGAAAATCGCATGTAGGTAGACATCAACT
GTGAGAGTCATGCTTGCGATTGATGAGTAGTGATCATCGCCAGCAATCAAACCTGACCGGCAAGTACCCCGCA
TCCTAGGAGCCCAGATTGAATACTAATA

Figure 1. UFMu*lox4* sequences for transposon insertion confirmation.

Table 2. Primer sequences for real-time RT-PCR analyses.

Gene	Primer forward	Primer reverse	Source
<i>ZmLOX3</i>	CGTTCCTCATCGACGTCAAC	GCGTGTAGACCTTGCTCTTG	AF329371.1 Maschietto et al. 2015
<i>ZmLOX4</i>	TACCGTGACACGCTGAACAT	CACAGCCACACCTCTCTTGA	DQ335762.1 Maschietto et al. 2015
<i>ZmLOX5</i>	CCGAGTTCTTCTCAAGACG	CCTGGGAGTAGAGCTTGTGC	DQ335763.1 Maschietto et al. 2015
<i>ZmLOX6</i>	GTGTACACTCCACCGGACAG	GTTGAGCCAGTGAGTGACGA	DQ335764.1 Maschietto et al. 2015
<i>ZmLOX7</i>	GCAATCATGCCAGGCGAGGCCGAGGG	GAGCACGGCGACCGCGCCCGGCTC	GRMZM2G070092 This paper
<i>ZmLOX8</i>	AGATCCAGGAGAACAGCGAG	GATCATGGACGGAGGAGGAG	DQ335766.1 Maschietto et al. 2015
<i>ZmLOX10</i>	GACGAGTGCAACAACAACCT	TGCATGCTGAGGATGGATCA	DQ335768.1 Maschietto et al. 2015
<i>ZmLOX11</i>	TCGTGGTTCAAAGACGAGGA	ATCTCCTTTGTGATGGCGGA	DQ335769.1 Maschietto et al. 2015
<i>ZmLOX12</i>	AACAAGGGGTGTGCGTCTAC	TCATTGACGGAGACATGAGC	DQ335770.1 Maschietto et al. 2015
<i>ZmAOS</i>	GATGAGCAACGACTTCACGA	CACACGCACACACACAAAAA	NM_001111774.1 Maschietto et al. 2015
<i>ZmOPR8</i>	TACTGATGCCCGATGGATCC	AACCTGCTTTGATGGCGTTT	AY921645.1 Maschietto et al. 2015
<i>ZmOPCL</i>	GTGCCCATGTTCCACGTCTA	AGCATGGCGACGAGGATG	NM_001148670.1 Maschietto et al. 2015
<i>ZmACX</i>	GTCCTCGTCTTCCACGTTGT	CGAGGTCAAGACCAAAGCTC	GRMZM2G864319 Maschietto et al. 2015
<i>Zmpl1</i>	ATATCTATCCCGCCGTCGTC	TCCGTCTCCTCTCTCTCTCA	NM_001111841.1 Maschietto et al. 2015
<i>ZmLBP</i>	TTCGACACATCAAGCTTTGG	ACGCAAGCCATATCAGCTCT	GRMZM2G155555 Maschietto et al. 2015
<i>ZmHPL</i>	ATCTTCCGGTTCCTCTGCAA	AAGGAGTGGATGAGCAGCTC	AY540745.1 Maschietto et al. 2015
<i>Zmβ-actin</i>	ATGGTCAAGGCCGGTTTCG	TCAGGATGCCTCTCTTGCC	AY273142.1 Maschietto et al. 2015