

**Table S1. Genotyping primers (5' to 3')**

Allele	Forward primer	Forward primer 2	Reverse primer
<i>Msx1<sup>lacZ</sup></i>	TTCTCCAGCTCGCTCAGCCTCACCGAGACC	GACCGCCAAGAGGAAAAAGAGAGGCCGAAGGC	GACCGCCAAGAGGAAAAAGAGAGGCCGAAGGC
<i>Msx2<sup>lox</sup>Msx2<sup>GFP</sup></i>	GTCTTCGCTTGAGAGTTGCCAGCCGAGTCGC	GTCGGACATGAGCGCCTCACGCTGAAGG	TTCCGCTGCCTGCAAAGGGTCGCTACAGACG
<i>Sm22<sup>Cre</sup></i>	GGACATGTTCAAGGATCGCCAGGCG	–	GCATAACCAGTGAAACAGCATTGCTG
<i>Msx2<sup>lacZ</sup></i>	GGCAAAGCGCCATTCGCCATTCAGGC	GTCTTCGCTTGAGAGTTGCCA	GTCGGACATGAGCGCCTC
<i>Rosa<sup>mTimG</sup></i>	AAAGTCGCTCTCTGAGTTGTAT	GCGAAGAGTTTGCCTCAACC	GGAGCGGGAGAAATGGATATG
<i>Msx1<sup>CreERT2</sup></i>	GGCTGTCTCGAGCTGCGGCTGGAGGG	CCATGGCGGTTGCGGTGGCCGAGC	GCTGGATAGTTTTACTGCCAGACCGCGCGCC