

Mouse	cccggaacatggataccgcgtccgccccgggATGTTcgtaggctggccggacagtccggAACATgagaaggcttcggtatattcctgttccctggg
Rat	cccggaacatggataccgcgtccgccccgggATGTTcgcgggtctggccggggcagtcggAACATgagaaggcttcggtatattcctgttccctggg
Macaque	cccggaacgtggatactgcgccccgcaggATGTTcgccggctggccggcagtcaggaAACATgagaaggcctcgctatccctgttccctggg
Dog	cccggaacgtggataccgcgccccgcaggATGTTcgccggctggccggcagtcagaAACATgagaaggcctcgctatccctgtgccccggg
Gorilla	cccggaacgtggataccgcgccccgcaggATGTTcgccggctggccggcagtcaggaAACATgagaaggcctcgctatccctgttccctggg
Orangutan	cccggaacgtggataccgcgccccgcaggATGTTcgccggctggccggcagtcaggaAACATgagaaggcctcgctatccctgttccctggg
Chimp	cccggaacgtggataccgcgccccgcaggATGTTcgccggctggccggcagtcaggaAACATgagaaggcctcgctatccctgttccctggg
Human	cccggaacgtggataccgcgccccgcaggATGTTcgccggctggaccggcagtcaggaAACATgagaaggcctcgctatccctgttccctggg
Marmoset	cccggaacgtgtataccgcgtccgcaggATGTTcgccggctggccggcagtcatgaAACATgagaaggcctcgctatccctgttccctggg
Cow	cccggaacgtgtataccgcgtccgcaggATGTTcgccggctggctgggagtcaggaAACATgagaaggcctcgctatccctgttccctggg
Tenrec	cccggaacgtggataccgcgtccgcaggATGTTcgccggctggctggcagtcggAACATgagaagacctcgctatccctgttccctggg
Dolphin	cccggaacgtggataccgcgtccgcaggATGTTcgccggctggccggcagtcaggaAACATgagaaggcctcgctatccctgttccctggg
Horse	cccggaacgtggataccgcgtccgcaggATGTTcgccggctggccggcagtcaggaAACATgagaaggcctcgatccctgttccctggg
Rabbit	cccggaacgtggataccgcgtccgcaggATGTTcgccggctggccggcagtcaggaAACATgagaaggcctcgatccctgttccctggg
Megabat	cccggaacgtggataccgcgtccgcaggATGTTcgccggctggccaggcagtcaggaAACATgagaaggcctcgatccctgttccctggg
Guinea Pig	cccggaacctggataccgcgtccgcaggcagtcaggaAACATgagaaggcctcgatccctgttccctggg
Hyrax	cccggaacgtggataccgcgtccgcaggcagtcaggaAACATgagaaggcctcgatccctgttccctggg
Kangaroo rat	cccggaacatggataccgcgtccgcaggATGTTcgccggctggctggcagccaggaAACATgagaaggcctcgatccctgttccctggg
Microbat	ccctggaaactggatccgcgtccgcaggATGTTcgccggctggccaggcagccggAACATgagaaggcctcgatccctgttccctggg
Mouse lemur	cccggaacgtggatccgcgtccgcaggATGTTcgccggctggccggcagccaggaAACATgagaaggcctcgatccctgttccctggg
Armadillo	cccggaacgtggatccgcgtccgcaggATGTTcgccggctggccggcagccaggaAACATgagaaggcctcgatccctgttccctggg
Opossum	cccggaagggtggattcccaatggcaggATGTTcatgagctgagctccacagtcgagaAACATgagaaggcttttatccatgttccctggg
Wallaby	cccggaagggtggattccgcataatggcaggATGTTcatgagctgagctcgagtcgagaAACATgagaaggcttttatccatgttccctggg
Lizard	cccggaagctgtgtacggcaaggggcaggATGTTcgccggctggccggcagaggAACATgagcaggcgcggcatttcacgttccctggg
Tetraodon	cccagaactggcgtaaatcatctacagtATGTTcgcaggctggctgtgcgaggaAACATgatcagggtgaagtatccatgttccctggg
Fugu	cccagaactggcgtaaatcatttacagtATGTTcgcaggctcaggcgtgtacgaggaAACATgatcagggtgaagtatccatgttccctggg
Medaka	cccagaaccggcgaaaccatcagtcgttATGTTcgcaggctccagtcgcgtgcgaggaAACATgagcgcaggcagatattcagggttccctggg
Stickleback	ccccgaaactggcgtagaccatgccaggATGTTcgcaggctggccgtgtctagtaggaAACACgagtagggtgagatattcagatccctggg
Zebrafish	cggcggaaaccggcataaaacattcacagtATGTTcgccgtctgagccgcttagctggAACACgagacgagtcgtggattcatgttccctggg

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Supplemental Figure 1. Multiple sequence alignment of the MRE from multiple *Mkx* orthologs revealed the presence of multiple conserved inverted repeat sequences. Identically conserved residues across all species are marked with an “*”. Inverted repeats are color coded for ease of identification. The highly conserved inverted repeat AACAT (red) contains the mouse *Mkx* recognition motif.