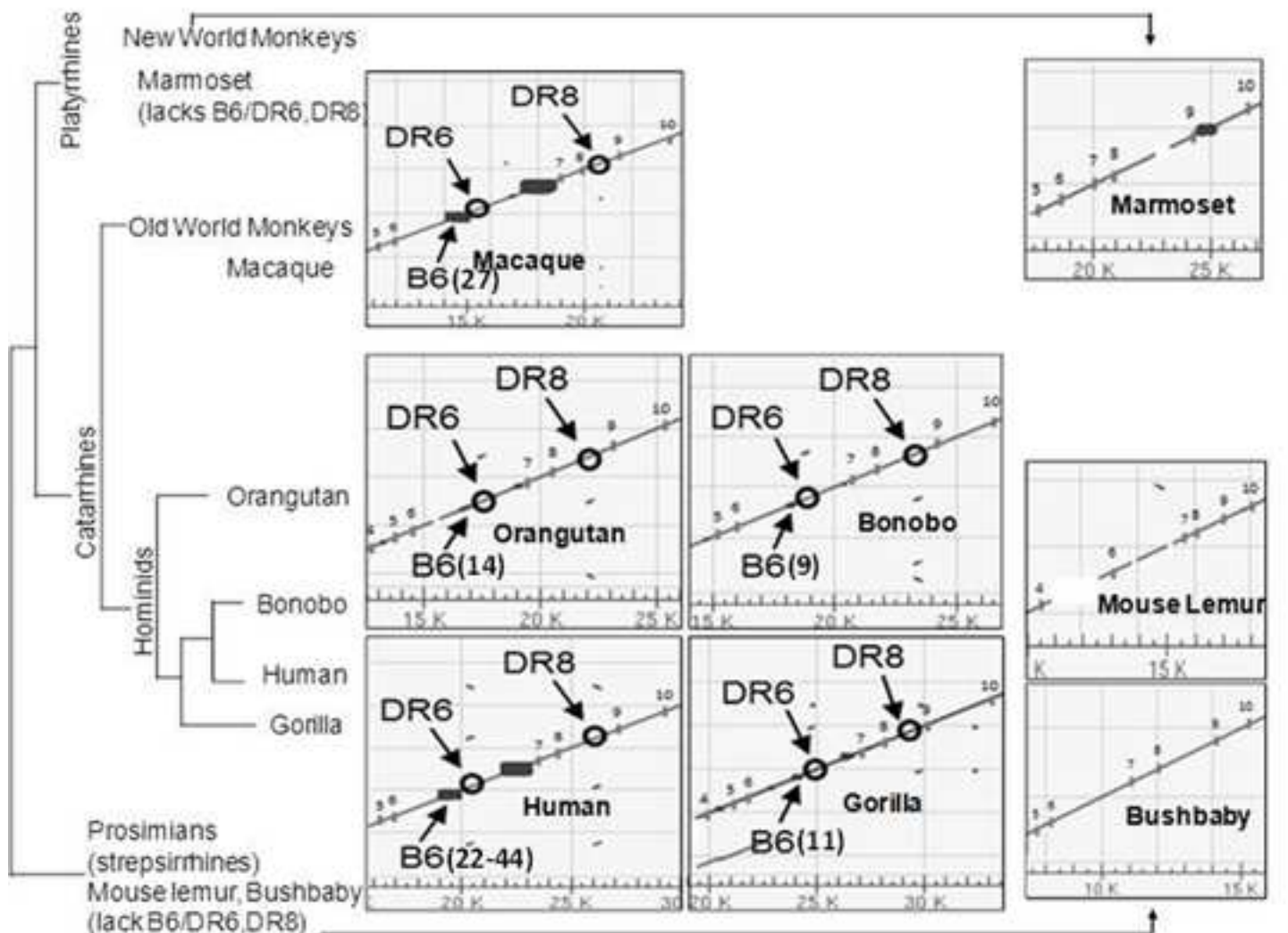
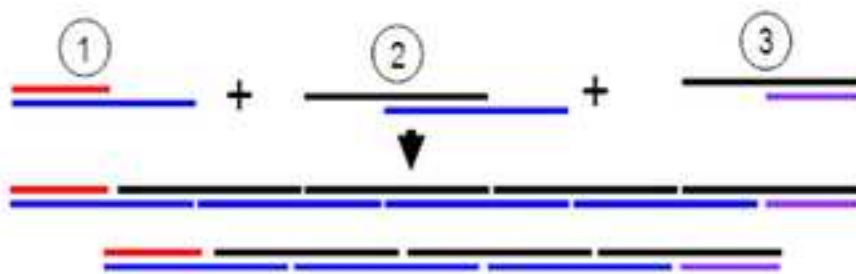


Supplementary Figure S1, related to Figure 1. Conservation of sequences among primates.



S1. The block 6 of 38 bp repeats in intron 6 (B6) and the two direct repeats in introns 6 and 8 (DR6 and DR8) are conserved among catarrhines (old world monkeys and hominoids), but are not present in platyrrhines (new world monkeys) or strepsirrhines (prosimians). Exons 5-10 are shown. Bonobo is shown rather than the closely related chimpanzee because of a gap in the chimpanzee genomic sequence. The number of repeats in block 6 is shown in parentheses for each species.

Supplementary Figure S2, related to Extended Experimental Procedures



S2. Diagram showing construction of block 6 repeats using overlapping PCR. Numbers 1, 2 and 3 indicate primer pairs (sequences listed in the extended experimental procedures).

Extended Experimental Methods

Construction of Block 6 repeats with variable number of consensus or mutant repeats.

The number of repeats and their sequence were manipulated by combining overlapping and terminating oligonucleotides in different ratios. 1 and 3 represent "termination" oligonucleotide pairs, which have appropriate overhangs to facilitate cloning into the minigene. 2 represents the 38 bp repeat or its mutants as staggered upper and lower strands. Varying the ratios of the pre-annealed 1 and 3 pairs with the annealed upper and lower number 2 strands produced a ladder of products of variable sizes. Products were then gel purified and cloned (supplemental figure S2)

Block 6 consensus repeats

Termination oligonucleotides 1

Top strand

5'-
GCATGGCTTAAGACAGTCTTTACTGTGTCAGCTTGCAAACCTGGGTGGGGATTGGTGAATTGGTTTTCATGTGTG
GGTAGGTGGG-3'

Bottom strand

5'- AAAACCAATTCCACCAATCCCACCCAGGTTTGCAAGCTGACACAGTAAAGACTGTCTTAAGCCATGC -3'

Consensus overlapping oligonucleotides

Top strand 5'- GATCTGTGGGATTGGTTTTTCATGTGTGGGGTAGGTGGG-3'

Bottom strand 5'- AAAACCAATCCCACAGATCCCACCTACCCACACATG-3'

Termination oligonucleotides 3

Top strand 5'- GATCTGTGGGATTGGTTTTTGTACATATGAG-3'

Bottom strand 5'- CTCATATGTACAAAAACCAATCCCACAGATCCCACCTACCCACACATG -3'

G28 → A mutant

Termination oligonucleotides 1

Top strand 5'-CATCATGCAGCATTAAATTAACATGTGTGGGGTAGaTGGG-3'

Bottom 5'- TTAATTAATGCTGCATGATG -3'

Consensus overlapping oligonucleotides

Top strand 5'-GATCTGTGGGATTGGTTTTTCATGTGTGGGGTAGaTGGG-3'

Bottom strand 5'-AAAACCAATCCCACAGATCCCCA_tCTACCCCACACATG -3'

Termination oligonucleotides 3

Top strand 5'-GATCTGTGGGATTGGTTTTTGTACACATCATGCAGCA-3'

Bottom strand 5'-TGCTGCATGATGTGTACAAAAACCAATCCCACAGATCCCCA_tCTACCCCACACATG -3'

G15 → A mutants

Termination oligonucleotides 1

Top strand 5'-CATCATGCAGCATTAAATTAACATGTGTGGGGTAGGTGGG-3'

Bottom strand 5'-TTAATTAATGCTGCATGATG -3'

Consensus overlapping oligonucleotides

Top strand 5'-GATCTGTGaGATTGGTTTTTCATGTGTGGGGTAGGTGGG-3'

Bottom strand 5'-AAAACCAATC_tCACAGATCCCCACCTACCCCACACATG -3'

Termination oligonucleotides 3

Top strand 5'-GATCTGTGaGATTGGTTTTTGTACACATCATGCAGCA-3'

Bottom strand 5'-ACGACGTACTACACATGTTTTTGGTTAGAGTGTCTAGGGGTGGATGGGGTGTGTAC-3'