



Supplemental Figure S4. Definition of orthologous palindromes. a) Criteria for defining orthologous palindromes. NHP = non-human primate (chimpanzee or rhesus macaque). Human and NHP palindrome arms were aligned with ClustalW, and required to have at least 20% alignment between species. Palindromes were excluded if the alignable region between palindrome arms mapped equally well to flanking sequence using reciprocal BLAST hits ($>10\%$ positions in high-quality hits mapping outside of palindrome arms). b) Example of an orthologous palindrome. Human palindrome arms map exactly twice to chimpanzee palindrome arms, and vice versa. c, d) Examples of palindromes that are not orthologous. c) Human palindrome arms have no orthologous sequence in rhesus macaque. Rhesus macaque palindrome arms correspond to flanking sequence in human. d) Rhesus macaque palindrome arms correspond equally well to more than two positions in human, and vice versa. Note that the region with the strongest orthology to rhesus macaque palindrome arms corresponds to flanking sequence in human.