Figure S2. Residual-residual plot between recombination rate (RR) and neutral polymorphism [i.e. the level of neutral polymorphism ( $\theta_{neu}$ ) or the level of normalized neutral polymorphism ( $P_{neu} = \theta_{neu}/d_{neu}$ )] after statistically removing the effects of GC content (GC), repeat density (RD), functional divergences [i.e. the divergence at coding sites ( $D_n$ ) and the divergence at conserved noncoding region ( $D_x$ )], and functional constraints [i.e. the number of codons ( $P_n$ ) and the number of conserved noncoding sites ( $P_n$ )].  $P_n$  is the difference between the observed value of the response variable, Y, and the value suggested by the regression model of Y on several predictor variables X={GC, RD,  $D_n$ ,  $D_x$ ,  $P_n$ ,  $P_n$ ,  $P_n$ . The values of  $P_n$  and  $P_n$  here are based on the Perlegen data are in (a) and based on the Watson data are in (b).

