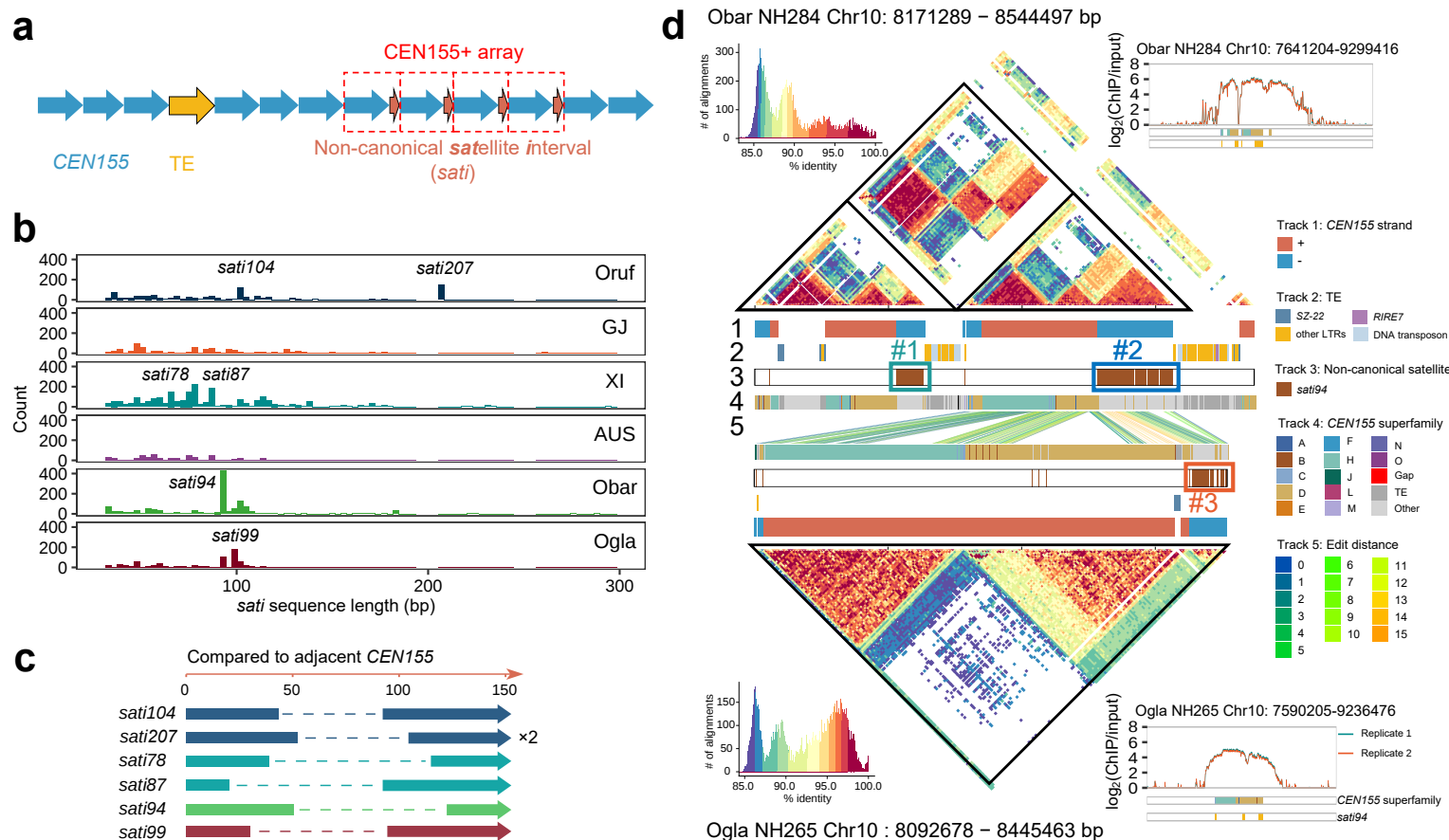




**Extended Data Figure 3 | Non-canonical satellites in *CEN155* arrays.** **a**, Schematic representation of a centromeric region with non-canonical satellites (*sati*). **b**, Length distribution of *sati* between canonical *CEN155* satellites showing the high-frequency non-canonical satellites. **c**, Origin of *sati* sequences derived from *CEN155* repeats. **d**, Comparison of the two Chr10 centromeres indicating the functional and evolutionary dynamics of *CEN155*+ arrays incorporating *sati94*. StainedGlass similarity heat maps suggest centromere duplication in NH284 (*O. barthii*), compared to NH265 (*O. glaberrima*), where the *CEN155*+ arrays composed of *CEN155* and *sati94* are marked from #1 to #3. CENH3 ChIP occupancy plots for the two centromeres indicate the functional consistency of *sati94* as *CEN155*.