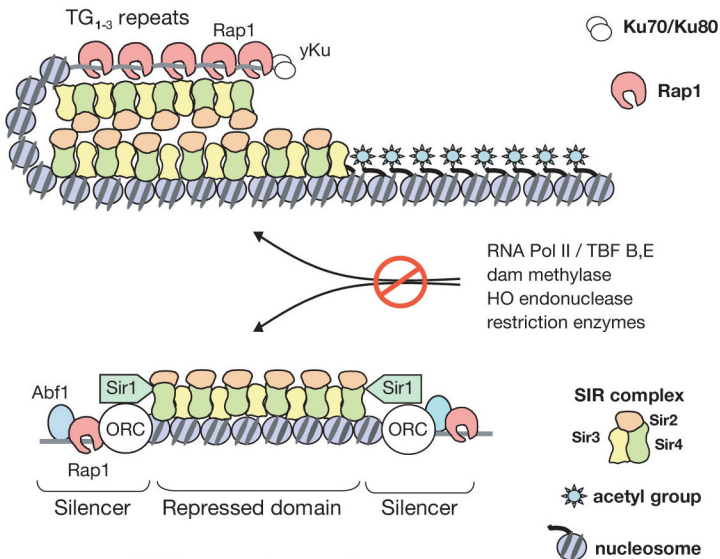


## Telomeric heterochromatin



## *HM* heterochromatin

**Figure 5. Model for Yeast Heterochromatin at Telomeres and the *HM* Loci**

The telomere and *HM* silencer mechanisms for nucleating SIR complex spreading both use Rap1, Sir2, Sir3, and Sir4, yet they differ in that telomeres also rely on yKu whereas the *HM* silencer elements use the factors ORC, Abf1, and Sir1. Telomeric heterochromatin is thought to fold back onto itself to form a cap that protects the telomere from degradation and whose condensation and folding silences genes. In the case of *HM* heterochromatin, the repressed domain between the silencer elements consists of closely spaced nucleosomes that form a condensed structure. Both the telomeric and *HM* silent regions are inaccessible to the transcription machinery and degradative enzymes.