

- Haemophilus:- It is a bacteria commonly found in respiratory tract of humans.

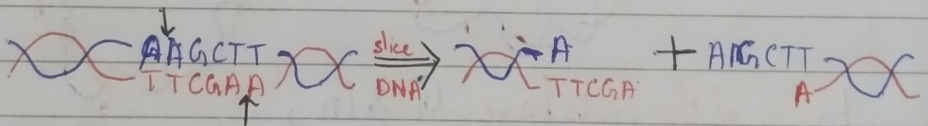
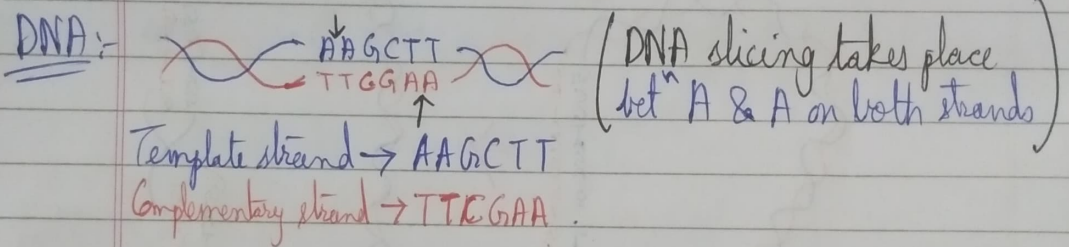
The restriction enzyme here is HindIII

Source:- ~~Bacillus amyl~~ Haemophilus influenzae Rd

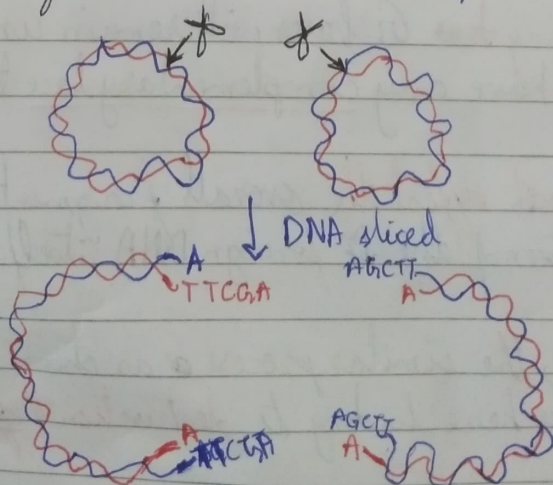
In HindIII:- Rd  $\rightarrow$  Rd strain

HindIII is used for DNA slicing at AAGCTT or TTCGAA sequence.

Like EcoRI, HindIII is also a Type 2 restriction enzyme. It can read palindromic sequence DNA (AAGCTT)



HindIII enzyme can only read & slice AAGCTT sequence if the foreign DNA has this same sequence.

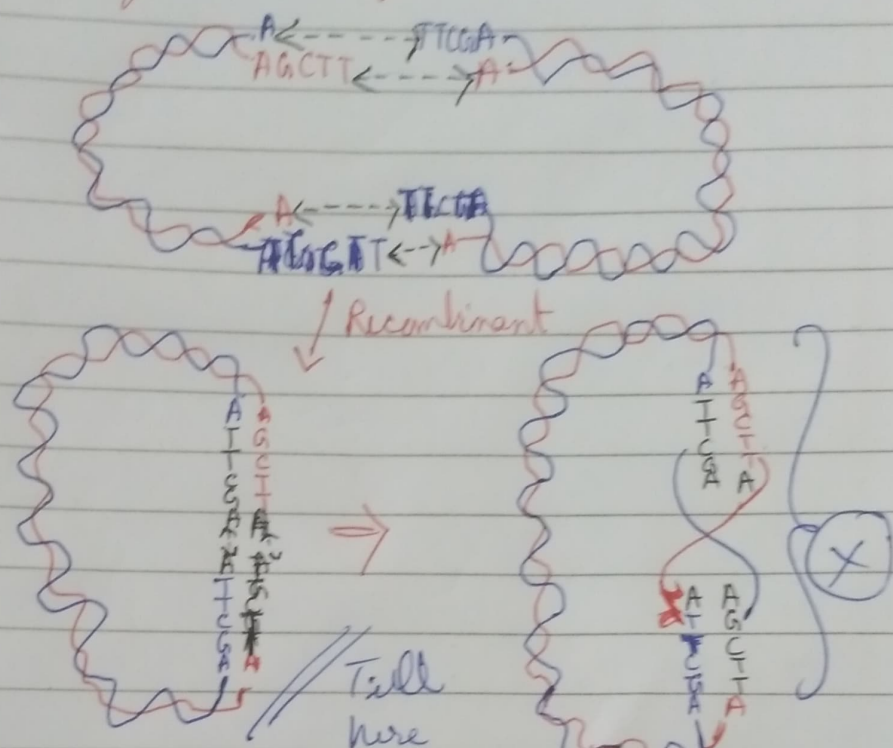


~~The~~ The sticky ends here are A and A

A can't pair with A

In order for recombinant to take place, the fragment's template & complementary strand gets rearranges its DNA sequence to allow pairing bet<sup>n</sup> A & T

(\*) Therefore, after rearrangement :-



Therefore, we have **AAGCTTAA...**  
**TTCGAA...**

2 "AA" & "TT" represents DNA sequence that *Hind*III recognises and cuts.

This sequence is preserved when fragments recombine. It does not represent extra bases.

It is simply part of DNA structure & symmetry around *Hind*III recognition site.

After this, similar process takes place where it is fragmented & degraded till its destroyed