* Lable clean microcentrifuge tube by your group number, and add the following

|  |  |
| --- | --- |
| component | Volume |
| DNA solution (0.5 microgram/microliter) | 1 ul |
| 10Xrestriction buffer | 2 ul |
| NaCl solution | 1 ul |
| Water | 16 ul |

* Add *MstII* (3 U for each one μg DNA, so you will add……………microliter from this enzyme) and incubate the reaction mixture for 20 min at 370 C in an incubator.
* Stop the reaction by adding 0.5 μl of 0.5 M EDTA.
* prepare it for agarose gel electrophoresis by adding 5 μl of gel loading buffer (Done by the teacher later)
* after sending you the result, write the repot discussing which sample found to have sickle cell anemia.

………………………………………………………………………………………………………………………………………………………………….

A certain isease found to be associated with the following sequenceA restriction Enzyme found to cut at

1

2

3

4

5

6

7

8

9

affected

Carry the

affected

affected

Carry the disease

Carry the

helthy

healthy

helthy

a specific region in a gene, at AGCTA, which can be cut by AluI Enzyme, this disease can appear only in case of homozygous.

After the cut using the enzyme, two DNA fragment should appear, one with 200 bp and the other is 600 bp,

Try to put down the band of each sample of the nine patients in the figure below in agarose gel electrophoresis

