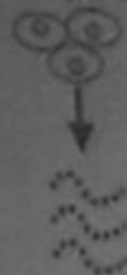
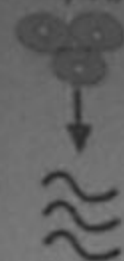


Rys. 1 Sekwencyjowanie DNA metodą „płoczek” Sangera

Sample A



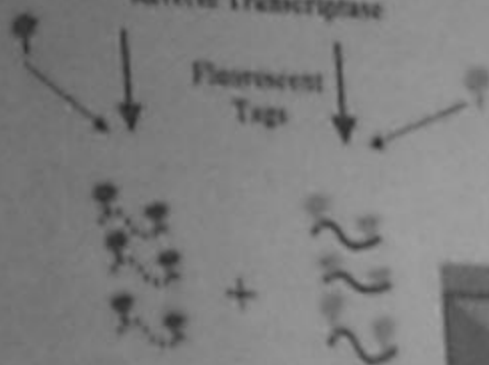
Sample B



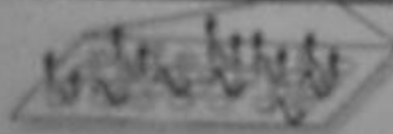
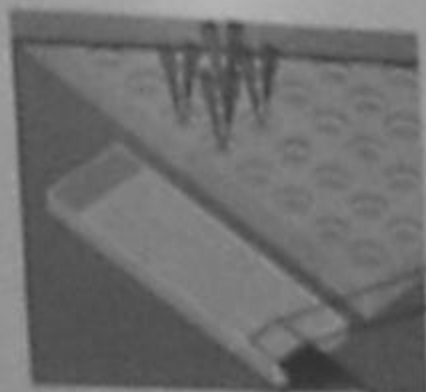
B. cDNA Generation

C. Labeling of Probe

Reverse Transcriptase



D. Hybridization to Array

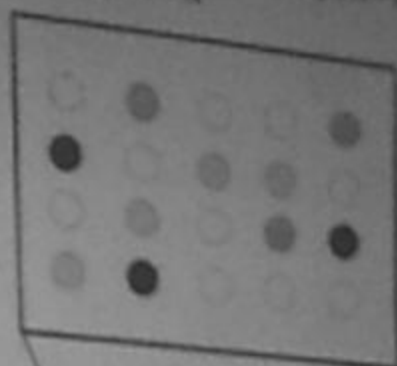


E. Imaging

● Sample A > B

● Sample B > A

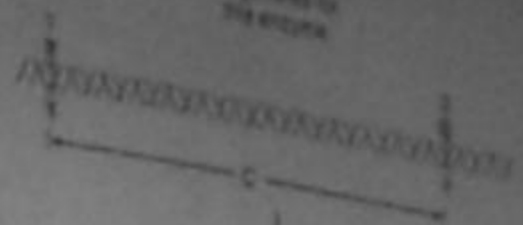
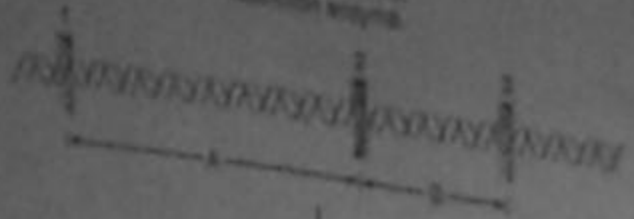
○ Sample A = B





Wild-type allele (A)  
This has target sites for a particular restriction enzyme.

Mutant allele (B)  
This has only one target site for the enzyme.

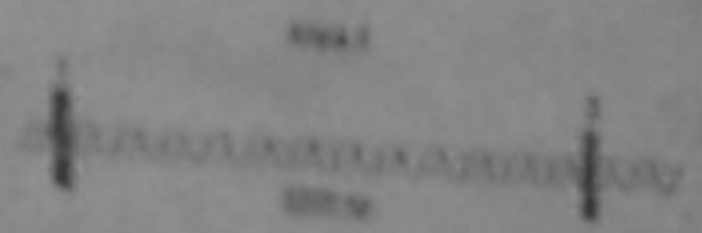
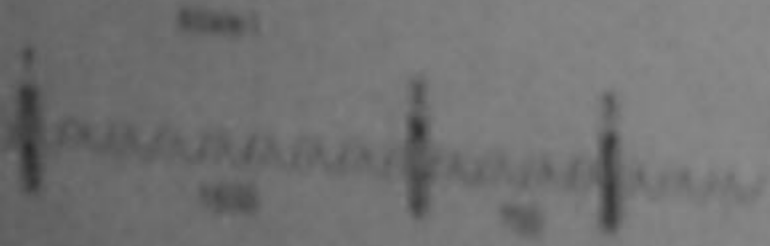


Cleave with restriction enzyme and electrophoresis.

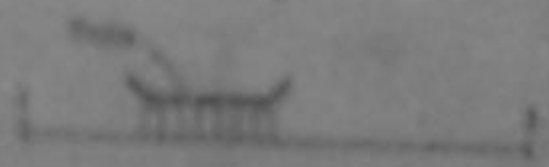
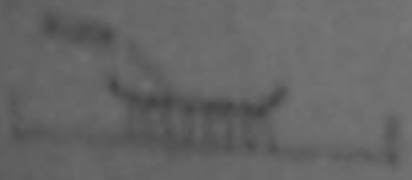


Fragment C is the size of A and B combined.

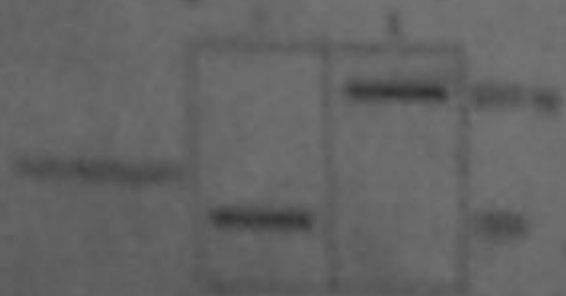
FIGURE 13-14 Restriction fragment length polymorphism is produced if a mutation eliminates a restriction site along a section of a DNA molecule. This mutation alters the pattern of fragments revealed by electrophoresis. (DPLP would also occur if a mutation created a restriction enzyme target site.)

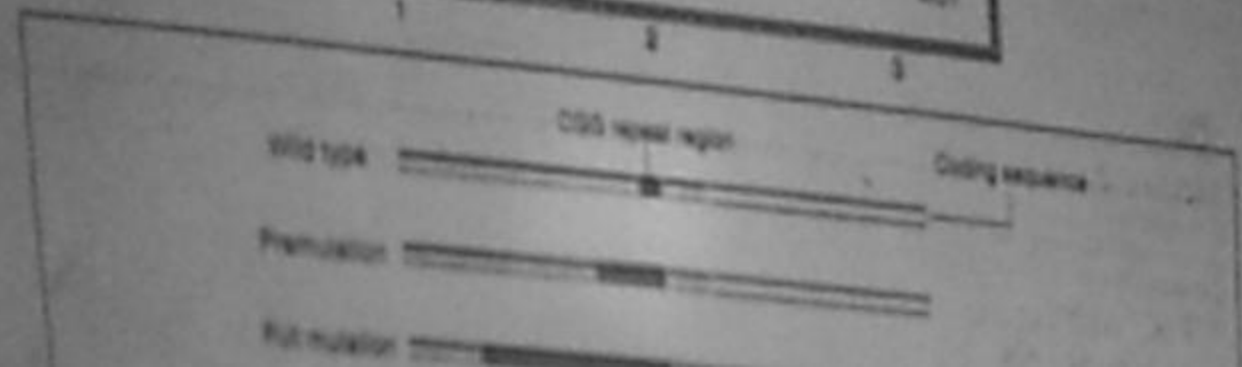
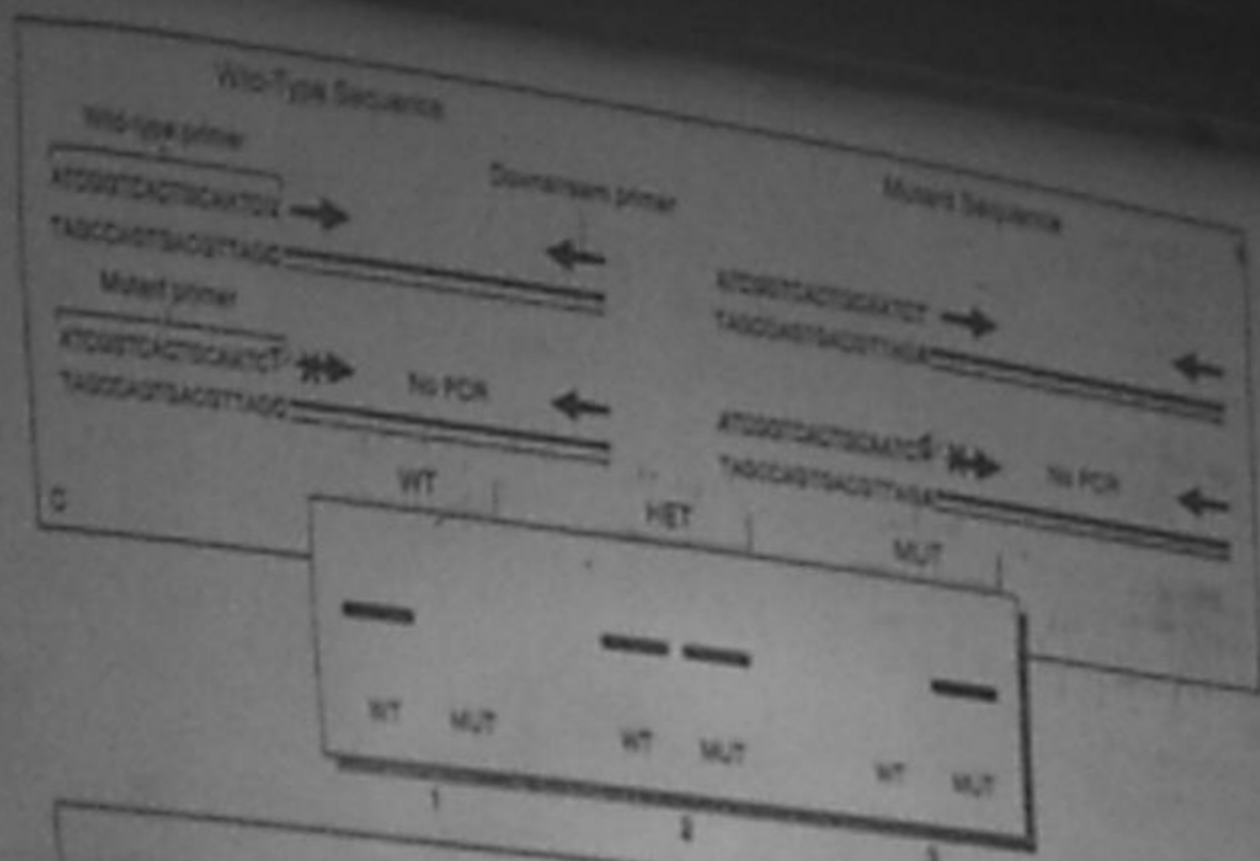


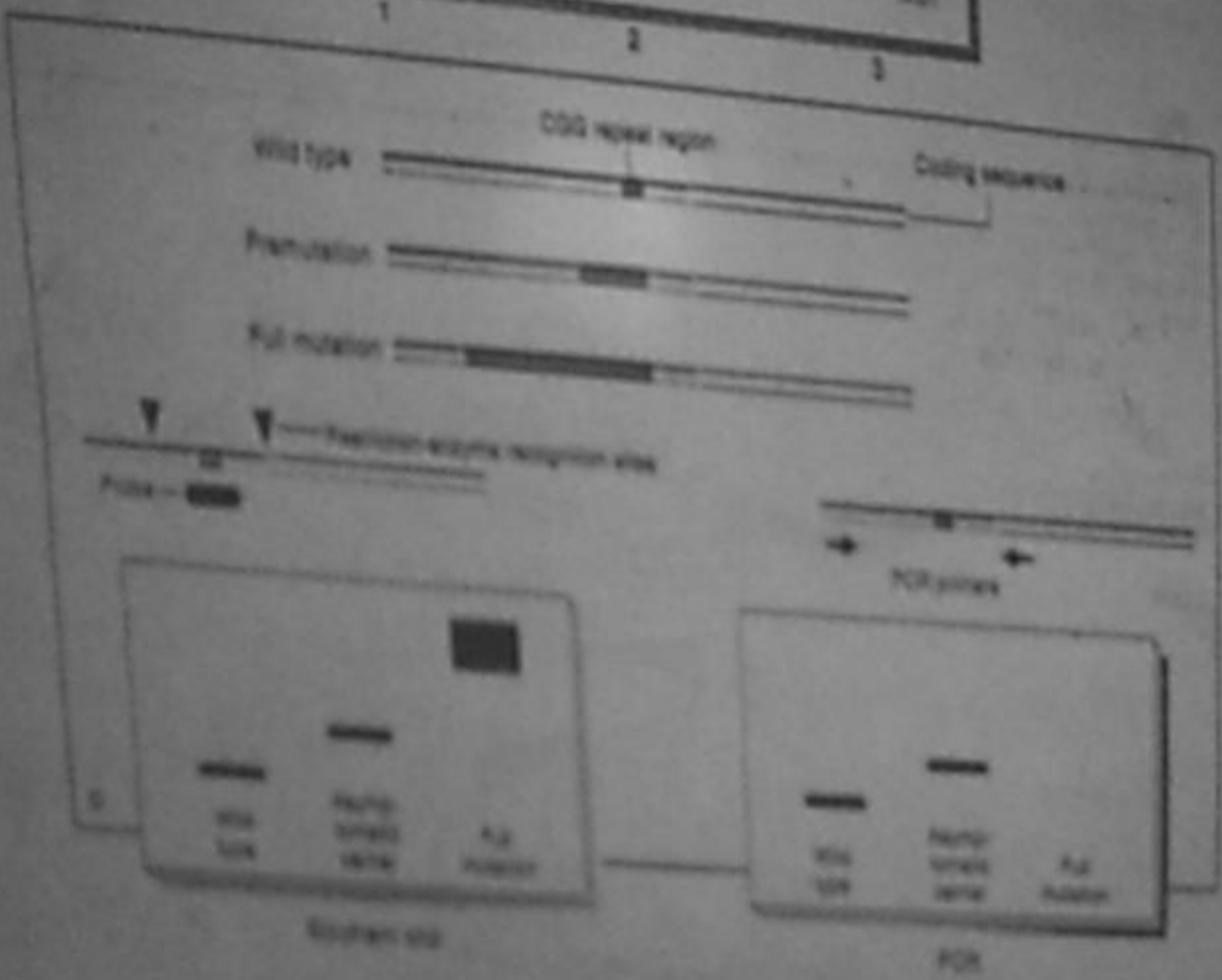
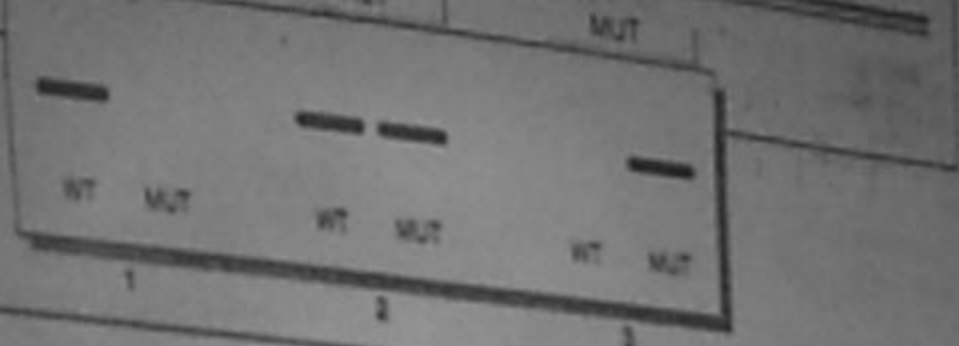
Change with  
vertical line



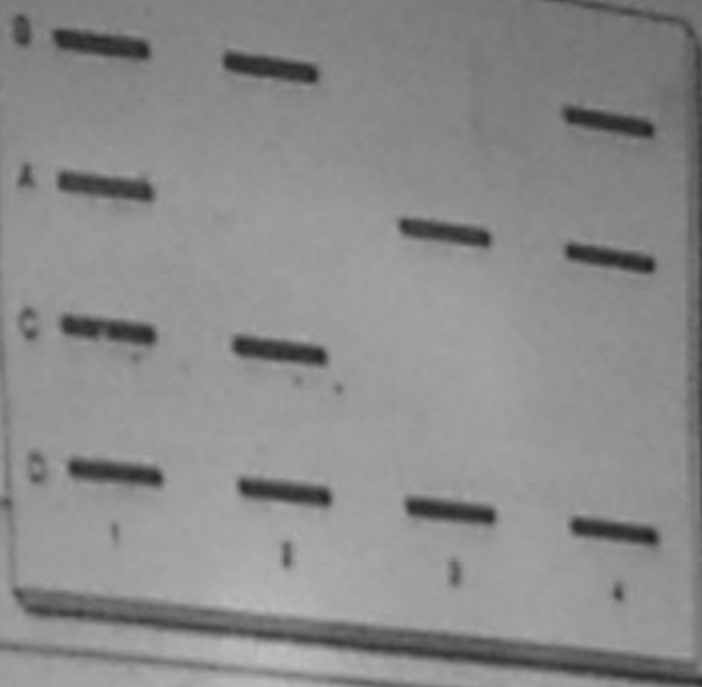
Change  
vertical line  
100%







### Multiplex PCR Analysis of Gene Deletions



Fluorescence in Situ Hybridization



RT-PCR

1 2 3 4 5 MW

$\beta$ -actin  
IFN- $\gamma$

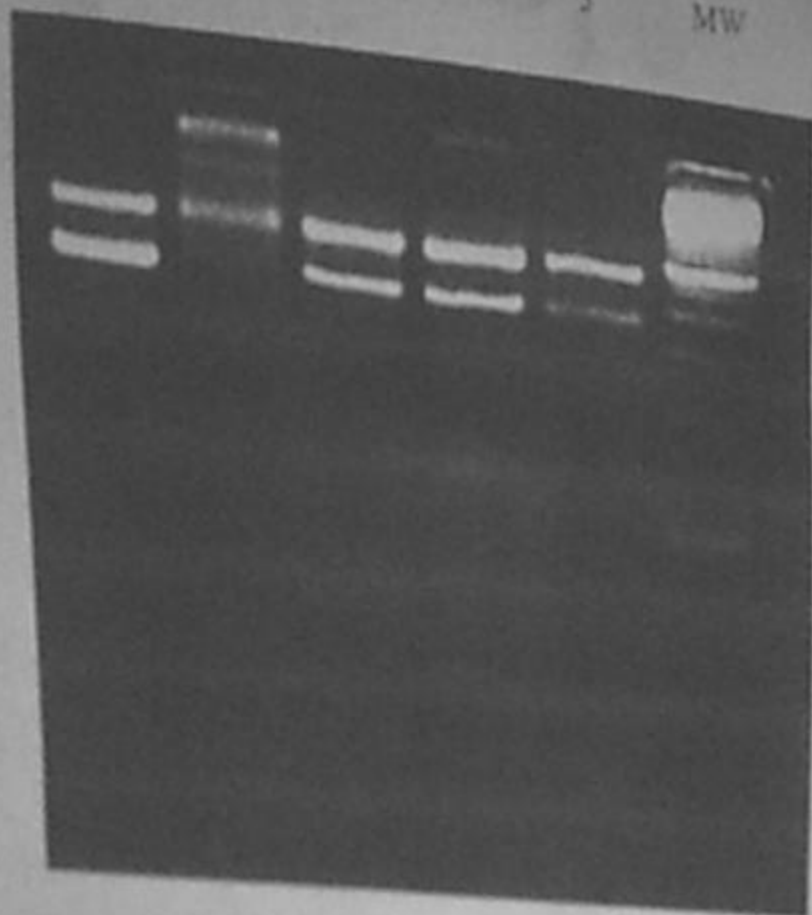
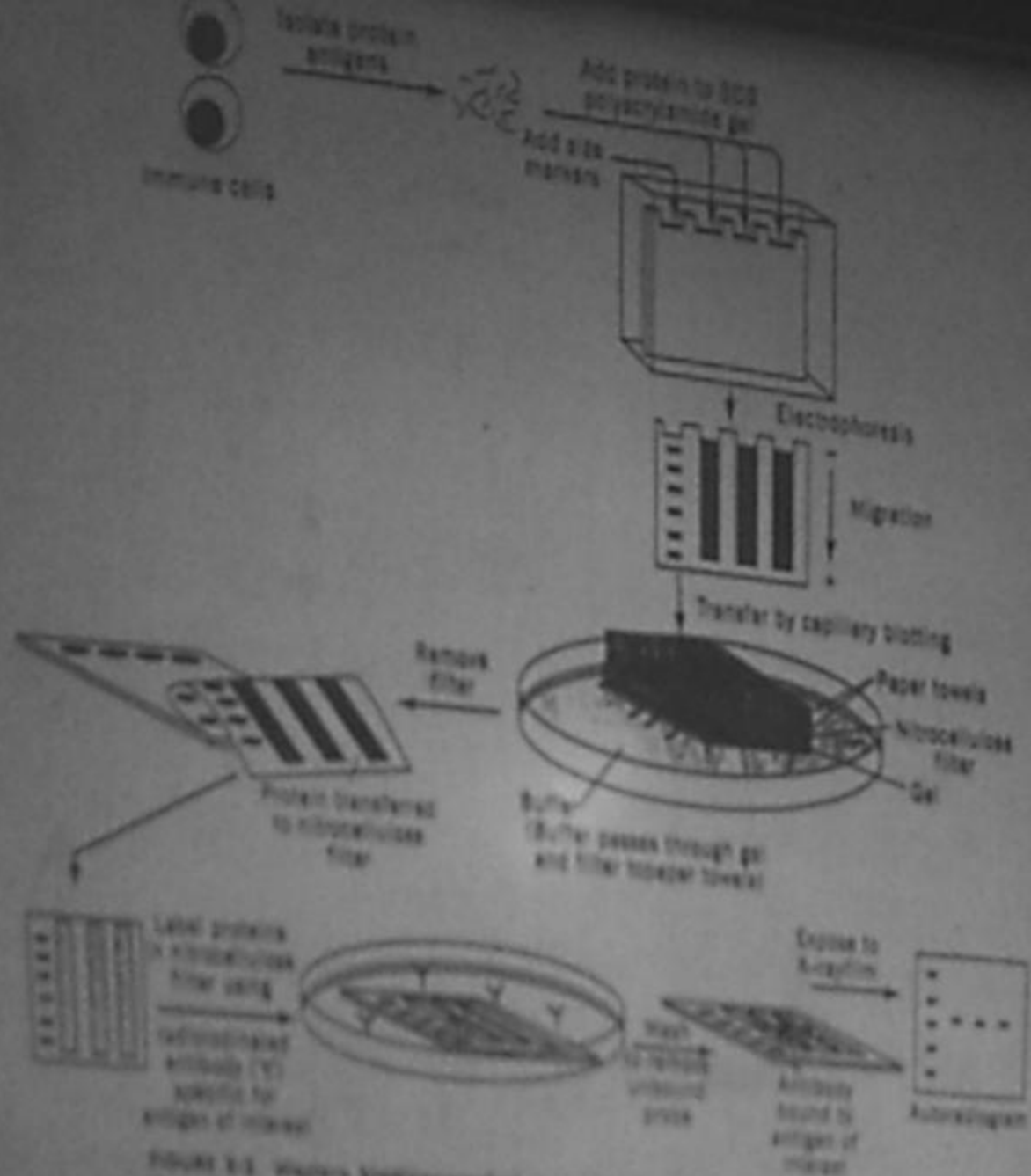


Fig.4 Expression of IFN- $\gamma$  gene in peripheral blood T cells of renal allograft recipients. MW denotes the molecular weight marker (100 bp ladder, Invitrogen). RAR-S: lanes 2,5, RAR-V: lane 1, Control: lanes 3,4.



**FIGURE 2-3** Western blotting—analyzing proteins by gel electrophoresis and blotting. Blotting is a common technique used to analyze the products of a gel. The process is applied to a polyacrylamide gel and requires that the gel be run under reducing or non-reducing conditions. Under reducing conditions, compounds such as  $\beta$ -mercaptoethanol and sodium dithionite reduce disulfide bonds in the protein sample and the gel is run in the presence of sodium dodecyl sulfate (SDS) as a detergent. The protein is separated from the gel and transferred to a nitrocellulose filter, yielding a protein replica of the gel. Blotting is summarized as described in Figure 4-1. The protein is specifically stained in the nitrocellulose filter with a reagent that will bind to the protein of interest. The protein is incubated with the filter for 1 to 2 hours. The antibody used to probe the protein binds to the filter. Unbound antibodies are washed off and the filter is exposed to X-ray film. The autoradiogram shows the protein of interest as a band on the film. If the antibody is specific, a Western blotting analysis can be used. If the antibody is specific, a Western blotting analysis can be used.