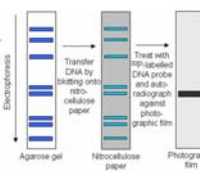


Southern Blot analysis with radioactive [α - 32 P] ATP labelling for identification of host candidate genes for parasite resistance in small ruminants

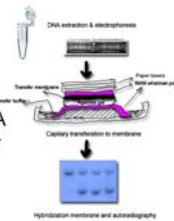
The APHL continued their involvement in fine-map a chromosomal region to find genes responsible for parasite resistance. A new Southern blot assay using isotope labeling and terminal deoxynucleotidyl transferase (using [α - 32 P]dATP-labelled probes) was successfully established to confirm or supplement the candidate gene results from different study. This method can be used for signal intensification. By using this assay sequencing can be supplemented or even replaced.

Southern blot analysis with radioactive [α - 32 P]ATP labelling

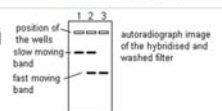
Southern blot is a method to check for the presence of a sequence in a DNA sample using DNA probe.



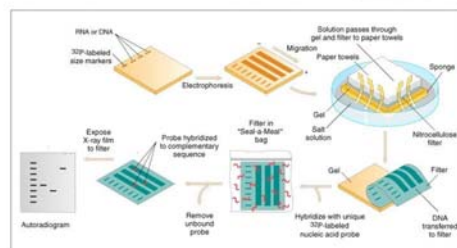
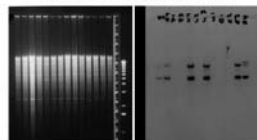
It combines gel electrophoresis with methods of transferring the size-separated DNA to a filter membrane for probe hybridization.



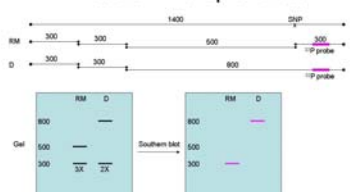
The probe DNA is labelled by incorporating radioactivity, so that it can be detected.



The pattern of hybridization is visualized on X-ray film.

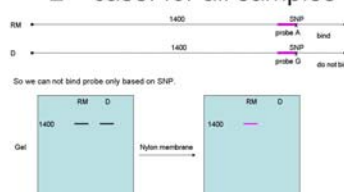


1st case: multiple cuts



There are several genes with complex pattern of RFLPs → Southern blot

2nd case: for all samples



If SNP works by probe detection, we can use Southern blot instead of enzyme.