Fragment Analysis

The AB 3730 and 3730XL are also used for the analysis of microsatellites, AFLP, TRFLP, SNPs, and other fragment applications.

Fluorescently labeled fragments are detected using the Applied Biosystems 3730 Genetic Analyzer and interpreted using GeneMapper or GeneMarker analysis software. Up to five different colored fluorescent dyes can be detected in one sample. One of these fluorescent dyes is used as a labeled size standard and added to each lane to allow comparison of samples from lane to lane, or gel to gel. The analysis software determines the length of each dye-labeled fragment based on the standard curve generated for each specific lane. Accuracy of less than one base difference can be observed between sample replicates. Higher throughput can be achieved by multiplexing different dyes and fragment sizes together.

Key features:

- Dyes detected:
  - DS30 (6-FAM, HEX, NED and ROX as size standard)
  - DS33 (6-FAM, VIC, NED, PET and LIZ as size standard)
- Size standards available:
  - LIZ 600
  - LIZ 1200
- Available Analysis software:
  - GeneMapper
  - GeneMarker

Applications:

- Microsatellite (Simple Sequence Repeats or Short Tandem Repeats)
- TRFLP (Terminal Restriction Fragment Length Polymorphism)
- AFLP Analysis (Amplified Fragment Length Polymorphisms)
- Gene Expression Profiling
- Mutation Detection

Sample Drop Off:

- Note: If size standard and formamide are needed, be sure to notify us in the comments of the service request.
- Bring samples to MBB 1.426.
  - Place all samples for fragment analysis inside the black fragment box in R2 Refrigerator. Facility Map
- Deadlines:
  - Fragment Analysis: Orders must be dropped off prior to 10:00 A.M.

Analysis Software:

- GeneMarker by SoftGenetics
- GeneMapper from Appliedbiosystems.

These programs are network shared programs that run on your PC and get authorization from our server. We have 3 licenses for GenMarker and 4 licenses for GeneMapper.

Please contact DNA Facility for help.