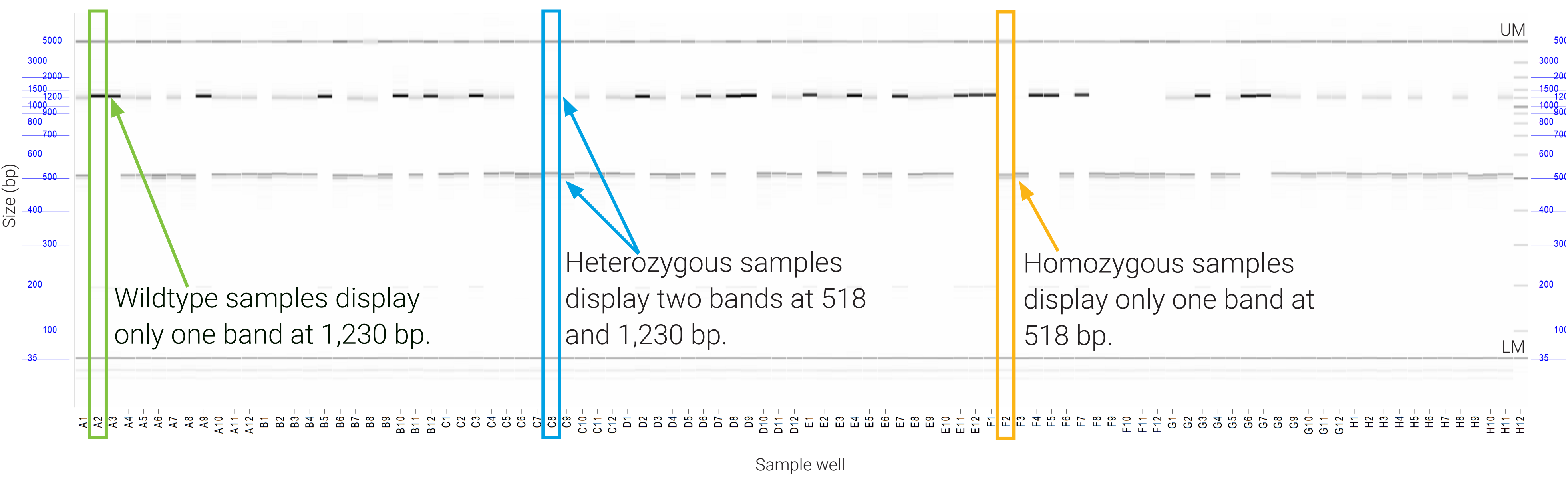




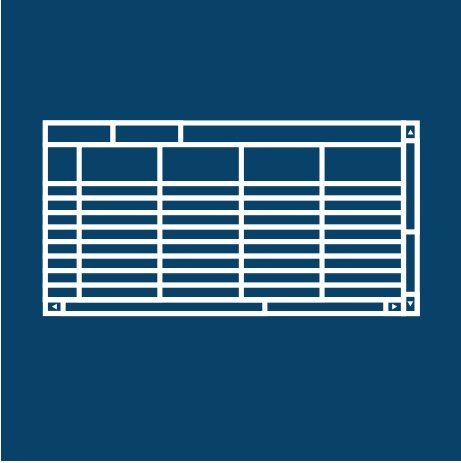
High-Throughput Genotyping

The ZAG DNA Analyzer system streamlines the genotyping process by automating the analysis of PCR amplifications using parallel capillary electrophoresis. Benefits of replacing your gel electrophoresis workflows with the automated system include:

- The ability to separate up to 96 samples simultaneously, and over 4,600 samples per day
- The flexibility to load up to nine, 96-well sample trays for continuous, uninterrupted testing
- The advantage of fast run times and high resolution with a variety of reagent kits and capillary array lengths



To demonstrate the ease of genotyping samples on the ZAG DNA Analyzer system, genomic DNA extracted from 96 *Arabidopsis thaliana* LOH1 knockout seeds were analyzed using the ZAG 110 dsDNA kit (35-5000 bp) in approximately one hour. In the results shown here, a single digital gel image features prominent bands of different sizes, allowing you to easily visualize which seeds are wildtype, heterozygous, or homozygous. LM = lower marker, UM = upper marker.



Simplified Data Analysis

The ZAG DNA Analyzer system along with Agilent ProSize data analysis software automates the analysis of PCR fragments in applications such as genotyping. ProSize software offers many advantages for the analysis of large data sets, including advanced sample flagging for easy fragment identification.

Peak table tab

Display size and relative concentration of each sample.

Boolean operations

Several Boolean operations - such as *and*, *or*, *and not*, and *nor* - are available.

Automated scoring of DNA fragments

Boolean operations are used to specify certain criteria (size, concentration, peak height, etc) and generate a binary output where 0=false and 1=true. This is especially useful for genotyping, allowing for the automatic scoring of the presence or absence of specific fragments.

Flag analysis tab

Individualized data analysis allows you to quickly determine if a fragment of interest is present or absent. Results can be exported for easy data interpretation.

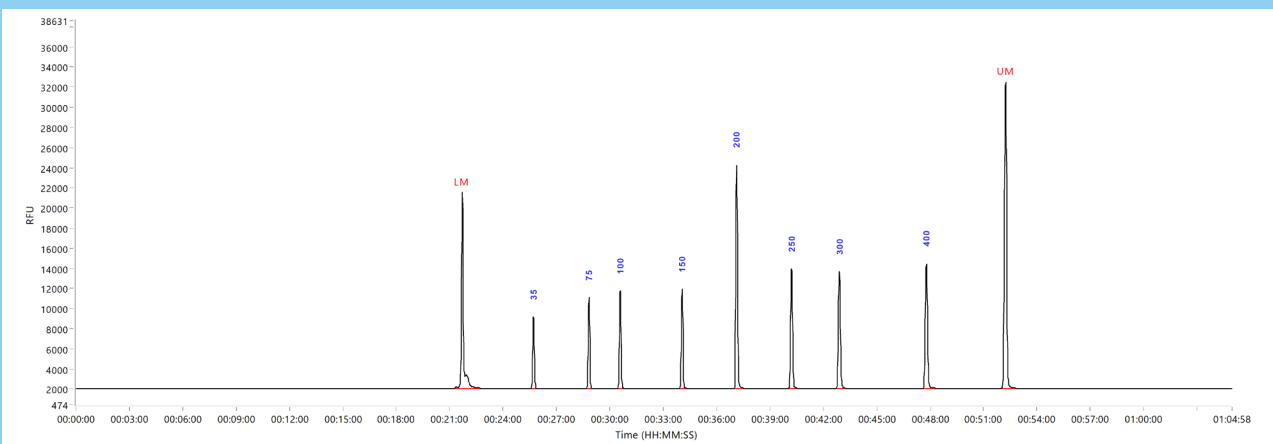
Peak Table		Flag Analysis		
	Sample ID	WT 1100 +/- 160 bp AND NOT 500 +/- 50 bp	Homozygous Kno 500 +/- 50 bp AND NOT 1100 +/- 160 bp	Heterozygous 1100 +/- 160 bp AND 500 +/- 50 bp
A1	plant1	0	0	1
A2	plant2	1	0	0
A3	plant3	1	0	0
A4	plant4	0	0	1
A5	plant5	0	0	1
A6	plant6	0	1	0
A7	plant7	0	0	1
A8	plant8	0	1	0
A9	plant9	1	0	0

Agilent ZAG DNA Analyzer Kits

The Agilent ZAG DNA Analyzer system is a high-throughput capillary electrophoresis instrument capable of screening thousands of samples per day. Designed for qualitative analysis, the instrument quickly and accurately performs fragment analysis on DNA samples up to 20,000 bp in size. The ZAG DNA Analyzer system is compatible with four individual reagent kits that cover a broad range of DNA fragments.



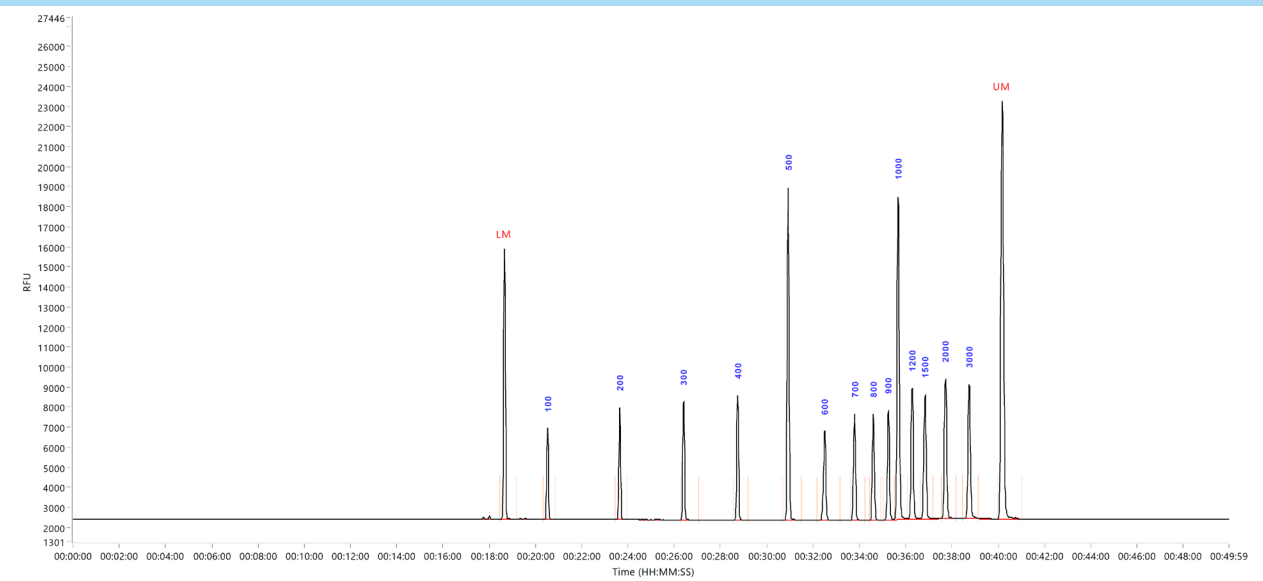
ZAG 105 dsDNA kit (1-500 bp)



Size range
35 to 500 bp

Separation time
60 minutes

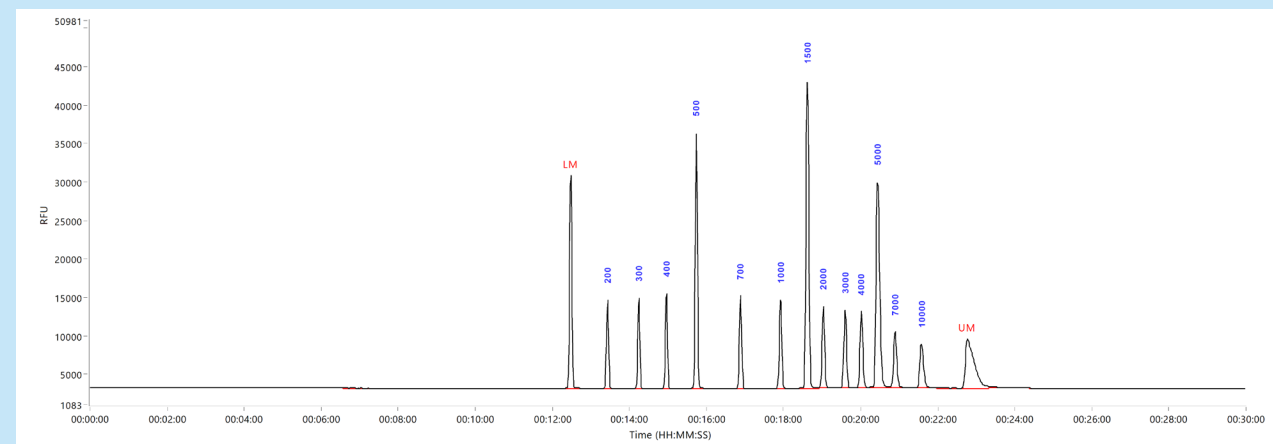
ZAG 110 dsDNA kit (35-5000 bp)



Size range
35 to 5,000 bp

Separation time
50 minutes

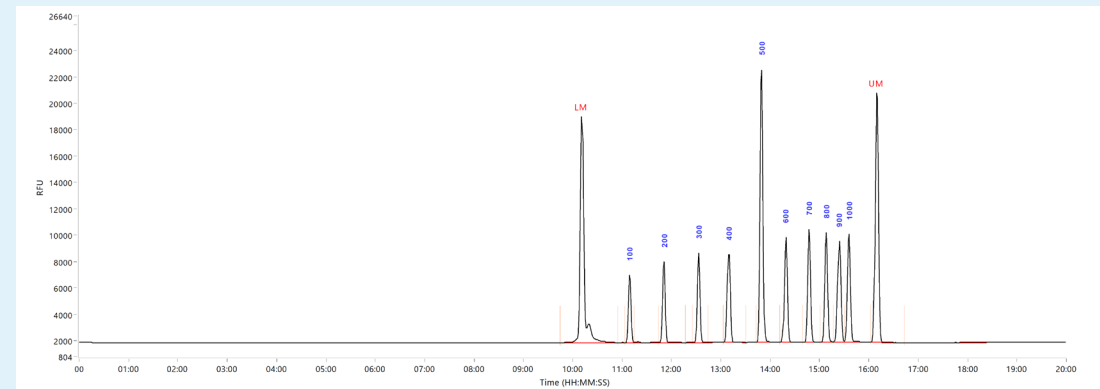
ZAG 130 dsDNA kit (72-20000 bp)



Size range
75 to 20,000 bp

Separation time
30 minutes

ZAG 135 dsDNA kit (1-1500 bp)



Size range
100 to 1,500 bp

Separation time
20 minutes