



BioDiagnostics Inc.

Molecular Breeding Services



*The BioDiagnostics, Inc. DNA
Lab provides molecular marker
assays to increase the effectiveness
of your plant breeding program.*

The Best Methods to Find Recombinants and Segregants



The DNA Lab at BioDiagnostics, Inc. is deeply committed to providing effective cutting-edge molecular technology to help plant breeders find recombinants and segregants invisible to the eye.

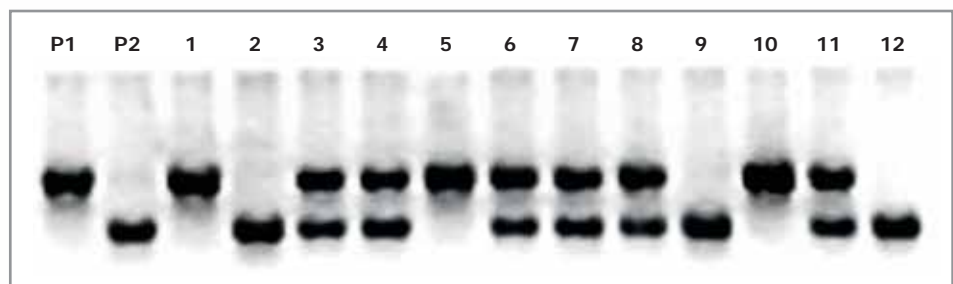
Our high-throughput services provide rapid analysis so that results are available when you want to make selections. Personnel trained in plant breeding and molecular biology consult with you to determine the molecular analyses that best assist you in reaching your program goals.

BioDiagnostics, Inc. treats your data, methods, materials, and knowledge with the greatest confidentiality. The proprietary nature of your individual programs is guarded through material transfer and confidentiality agreements.

MARKER-ASSISTED SELECTION

Traits that are difficult to select phenotypically can be selected molecularly. Stacked disease resistance genes and traits that are environmentally sensitive are difficult to select by phenotype alone. For these types of traits, selection can be done on DNA markers linked to the traits. Molecular selection can be applied early in the breeding program and at early stages of plant growth, significantly increasing the efficiency of line advancement.

Molecular Selection in F2 Population





MOLECULAR SELECTION FOR THE RECURRENT PARENT GENOME IN BACKCROSSING PROGRAMS

In the same way that traits of interest are selected by molecular markers, the recurrent parent genome can also be selected by polymorphic markers that are distributed throughout the genome. Molecular selection allows recovery of 95% – 99% of the recurrent parent genome in three backcross generations. We work with you to develop an optimal program to recover the maximum proportion of the recurrent parent, in the shortest number of generations, with the most efficient number of polymorphic markers.

107.3	107.6	167.3	213.3	202.6	106.0	247.2	102.2	206.1
	170.0						114.7	
104.2	175.7	167.3	213.3	205.6	106.0	247.2	114.7	206.1
104.3	107.6	167.2	213.3	202.6	106.0	247.1	102.2	271.3
104.2	106.0	167.2	213.3	204.5	106.0	247.2	114.7	206.1
							114.7	
107.3	107.7	167.3	213.2	202.6	106.0	247.3	114.8	272.2
								207.1
116.7	169.7	170.4	246.9	246.5	145.2	253.3	102.2	260.1
116.8	169.6	170.4	246.9	246.5	145.6	253.3	102.2	265.3
116.7	169.6	185.8	246.9	202.7	145.4	227.5	102.2	265.3
116.7	169.5	185.7	246.7	202.4	145.4	227.5	102.1	265.2
107.4	107.6	167.3	246.8	246.3	109.1	247.2	114.8	246.3
					191.2			
107.3	107.6	167.3	246.7	246.3	109.1	247.2	114.7	266.2
					191.2			
249.8	169.6	167.4	246.7	205.5	109.1	227.5	75.1	265.2
200.7	107.7	170.4	246.8	246.3	195.1	228.6	75.0	265.2
								253.3
116.7	169.6	170.4	246.8	246.3	145.4	253.3	102.2	260.1
116.8	169.6	170.4	246.8	246.4	145.5	253.3	102.2	260.3
107.4	105.0	173.5	213.2	202.5	198.3	253.3	114.8	205.2
107.3	169.7	173.5	213.1	246.4	198.2	253.3	114.8	206.0
								202.5
116.7	166.7	170.5	246.8	246.4	191.2	253.2	75.0	265.2
116.7	169.5	164.2	246.7	205.5	145.1	228.5	75.0	205.9
					100.1			

MOLECULAR MAPPING

BioDiagnostics, Inc. offers mapping services to find molecular linkages to traits that have not yet been mapped. We consult with you to identify a suitable population and then screen the population with polymorphic markers. Through phenotypic analysis of the population, we identify markers linked to the trait of interest.

GENOTYPING

BioDiagnostics, Inc. has identified a set of markers that provide a unique genotype for most soybean varieties. Protect your financial investment in proprietary soybean varieties by establishing their unique fingerprints with this service.



TRANSGENE CONVERSION

Integration of most transgenes can be expedited by molecular assays. BioDiagnostics, Inc. has validated protocols from, and agreements with, many trait providers to offer trait-specific testing services to their trait licensees.

BioDiagnostics — Your Partner in Seed Excellence

Confidential, Quality Service—From knowledgeable and experienced seed technologists

Quick and Accurate Seed Test Results—Usually within 14 days of receiving the sample

Precise Diagnosis—Through calibration, validation, refereed testing, and internal control samples

Constant Innovation—Ongoing seed testing development for transgenic and specialty trait crops

Committed to Our Mission—Enhance customer success by providing accurate, reliable, and timely seed quality testing and analysis services



BioDiagnostics Inc.

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