

Gel Electrophoresis

Recommended Agarose Gel Percentages for Resolution of Linear DNA

Gel percentage	DNA size range
0.5%	1,000-30,000 bp
0.7%	800-12,000 bp
1.0%	500-10,000 bp
1.2%	400-7,000 bp
1.5%	200-3,000 bp
2.0%	50-2,000 bp

Recommended Polyacrylamide Gel Percentages for Resolution of DNA

Gel percentage	DNA size range
3.5%	100-1,000 bp
5.0%	75-500 bp
8.0%	50-400 bp
12.0%	35-250 bp
15.0%	20-150 bp
20.0%	5-100 bp

Recommended Acrylamide Gel Percentages for Resolution of Protein

Gel percentage	DNA size range
8%	40-200 kD
10%	21-100 kD
12%	10-40 kD

Dye Migration in Polyacrylamide Nondenaturing Gels

Gel percentage	Bromophenol Blue	Xylene Cyanol
3.5%	100 bp	460 bp
5.0%	65 bp	260 bp
8.0%	45 bp	160 bp
12.0%	20 bp	70 bp
15.0%	15 bp	60 bp
20.0%	12 bp	45 bp

Dye Migration in Polyacrylamide Denaturing Gels

Gel percentage	Bromophenol Blue	Xylene Cyanol
5.0%	35 nucleotides	140 nucleotides
6.0%	26 nucleotides	106 nucleotides
8.0%	19 nucleotides	75 nucleotides
10.0%	12 nucleotides	55 nucleotides
20.0%	8 nucleotides	28 nucleotides