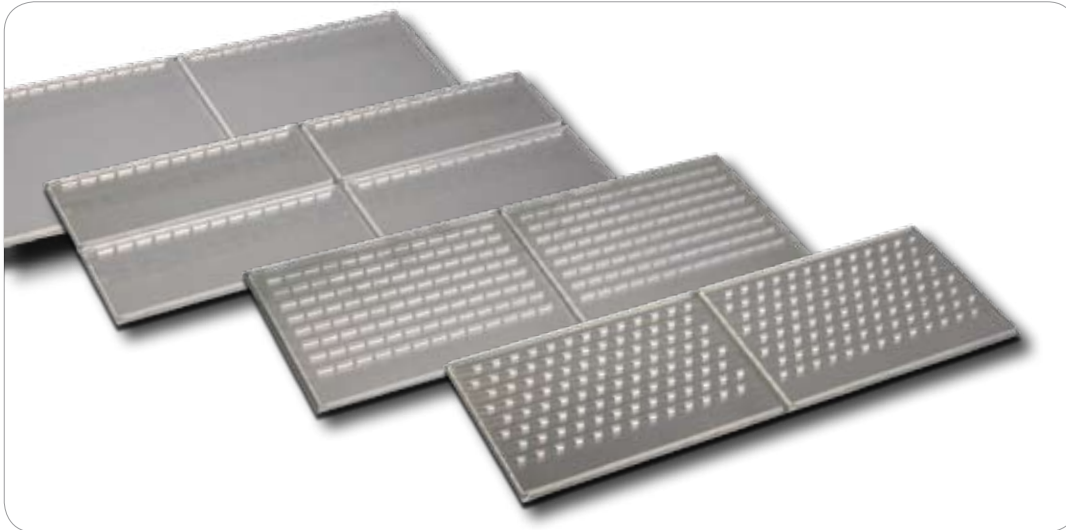


Elchrom Scientific **Spreadex®** gel
Ready-to-use gels for DNA/RNA analysis



Spreadex® gels for best results in DNA/RNA analysis in the size range of 20 bp – 1000 bp

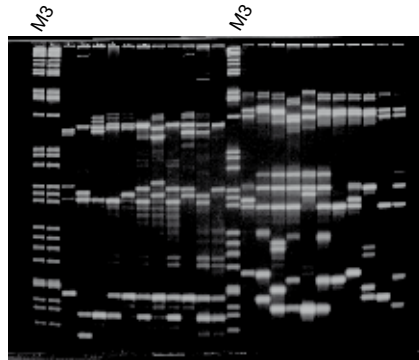
- **Sensational Resolution** - up to 4 bp on 4 cm and 1 bp on 8 cm gel length
- **Unsurpassed Reproducibility** - repeated equal quality under the same conditions
- **Direct Recovery** - stained bands can be excised and directly used for re-amplification, sequencing and cloning
- **High Throughput** - analysing up to 2500 samples per day



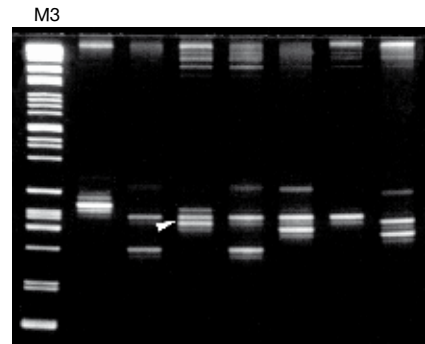
Elchrom Scientific
Excellence in Electrophoresis

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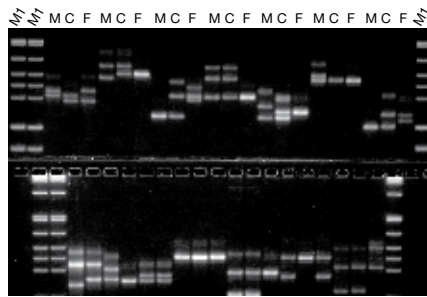
Microsatellite analysis



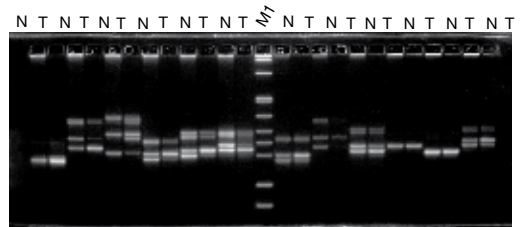
Fingerprinting: 11 human DNA samples at 6 microsatellites loci tetranucleotide repeats



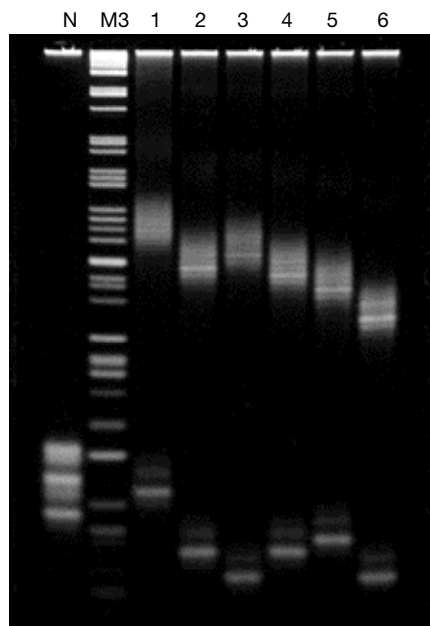
Cancer testing: NF1 locus separation of dinucleotide repeats



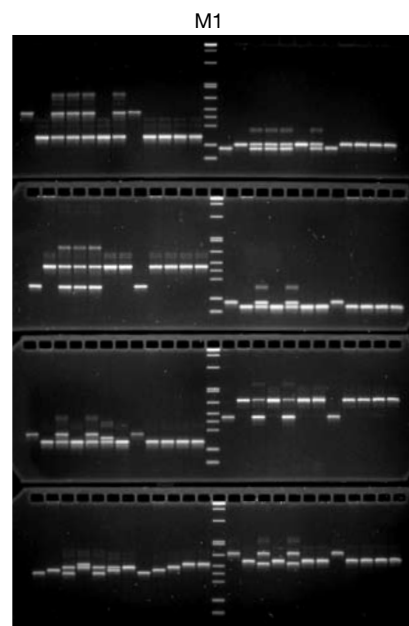
Paternity testing: Mother (M), child (C), and father (F) were analysed at 13 CODIS loci



LOH (loss of heterozygosity): Deletion mapping at 6 loci on chromosome 17 using normal (N) and tumor (T) DNA of two patients

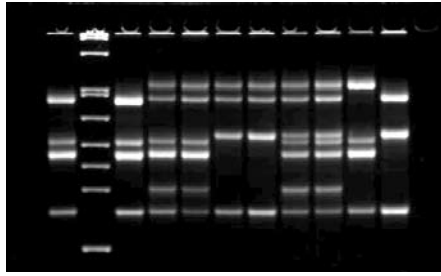


Detection of Huntington Disease: Lane N healthy person. Lanes 1-6 DNA from Huntington patients, with one allele of normal size and the other much longer



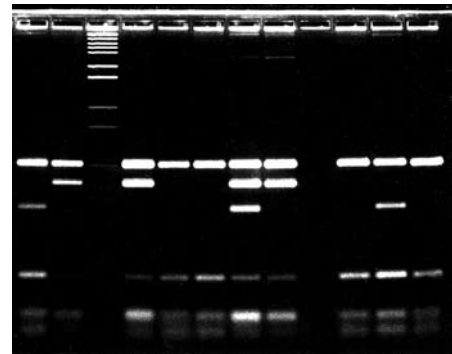
Marker assisted breeding: Example of mouse STRs in speed congenics

Allele Specific PCR



Analysis of the FV, FII and the MTHFR genes associated with Thrombosis

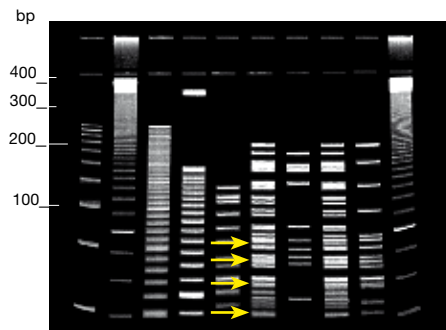
RFLP



High throughput analysis of ApoE restriction fragments

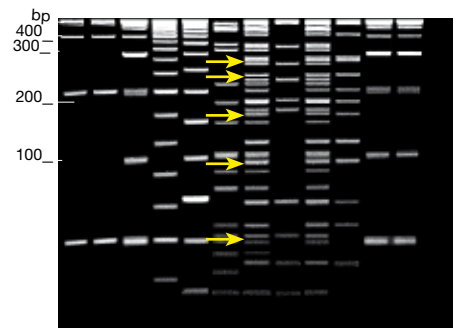
Spreadex[®] gel compared to Polyacrylamide gel

Spreadex[®] gels are manufactured from a novel monomer called NAT (N-acryloyl-tris(hydroxymethyl)-aminomethane). The features of **Spreadex[®]** gels are extraordinary. **Spreadex[®]** gels have 3 x higher resolving power than any other synthetic gels.



Lanes: 1 – 100 bp ladder; 2,10 – 50 bp ladder; 3 – 20 bp ladder; 4 – 25 bp ladder; 5 – pBR322/HhaI; 6,8 – M3 marker; 7 – pBR322/HaeIII; 9 – M1 marker.

10% polyacrylamide TBE gel was run in a conventional apparatus for 2 h at 120 V. A 4% stacking gel was polymerized on top of the 5.7 cm long separating gel. None of the marked bands differing by 4 bp are resolved.



Lanes: 1 and 2 – 100 bp ladder; 3,11,12 – 50 bp ladder; 4 – 20 bp ladder; 5 – 25 bp ladder; 6 – pBR322/HhaI; 7,9 – M3 markers; 8 – pBR322/HaeIII; 10 – M1 marker.

Precast **Spreadex[®] EL400** gel was run for 2 h at 200 V in a Elchrom submarine electrophoresis apparatus. The marked groups of bands differing by 4 bp are all resolved: (217,213 bp); (184,180 bp); (151,147 bp) and (104,100 bp).

High quality, low costs

Spreadex[®] gels possess an exclusion limit (EL). Molecules whose size is above the limit do not enter the gel. This selective cut-off limit results in a larger spacing between the fragments, so that the bands become more resolved.

Spreadex[®] gels run at 55 °C to separate DNA fragments purely according to their length. At this temperature differences in sequence do not have an effect on the migration rate any longer.

Spreadex[®] gels are ideal for direct sequencing, re-amplification and direct recovery for cloning because the gels are absolutely inert. No inhibition of enzymes occurs.

Spreadex[®] gels exist with different EL (300, 400, 500, 600, 800, 1200), in different gel lengths (4 cm and 8 cm) and formats (8-400 sample wells).

Spreadex[®] gels are:

- temperature and mechanically stable
- easy to load, all wide mini gels are compatible with multichannel pipette
- highly sensitive

Spreadex[®] is THE cost-effective solution for a wide range of application

Spreadex[®] is ideal for

Microsatellite Analysis/STR

- Identity testing
- Paternity testing
- Cancer testing
- LOH (loss of heterozygosity)
- Genetic diseases testing
- Population studies
- Marker assisted breeding

RFLP

- ApoE
- p53
- K-ras

Methylated DNA Analysis

Telomerase activity Analysis

Allele Specific PCR

- Point mutation detection
- SNPs

Multiplex PCR

Competitive PCR

- GMO analysis

LAM-PCR

RNA Analysis (below 1 kb)

- tRNA
- siRNA

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