

# Isoforms of DNA

Determination of DNA Isoforms by Capillary Electrophoresis and Laser Induced Fluorescence Detection

## Instruments:

Capillary Electrophoresis: Agilent CE  
Detector: Picometrics ZETALIF 2000 detector  
Laser: Argon Ion laser 488 nm, 12 mW

## Sample:

Plasmid DNA pBr 322 sample in analysis buffer  
(CCC = covalently closed circular DNA)

## Reagents:

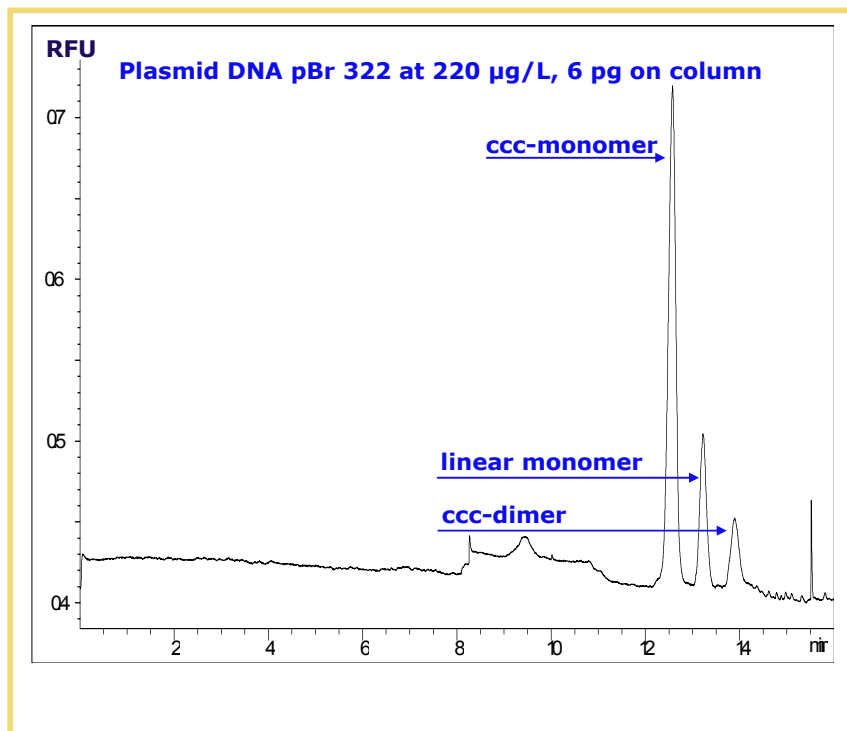
Derivatization agent: YOYO 1 from Molecular Probes

## Methods:

Capillary: Coated capillary (Agilent Technologies Ref.1271722) microsyl DB-17, 100  $\mu$ m ID, 94 cm length (80 cm effective length)  
Buffer: Tris 89 mM – Boric acid 89 mM – EDTA 2mM, pH=8.4, and 0,1% (w/w) Hydroxy Propyl Methyl Cellulose (HPMC)  
Voltage: -30 kV, 70  $\mu$ A  
Injection: 10 seconds at 50 mBar, followed by add. buffer injection 5 sec., 50 mBar. Estimated injected volume 28 nL (6 pg of DNA)

Limit of Detection\*:  
22  $\mu$ g/L

\* Estimated for a S/N of 3



Source: Picometrics application lab.