

QC of Immunoglobulins

Detection of an IgG, by Capillary Zone Electrophoresis (Bio-Rad Kit CE-SDS) and Native Laser Induced Fluorescence, compared to conventional UV detection

Instruments:

Capillary Electrophoresis: Agilent CE
Detector: Picometrics ZETALIF 2000 detector
Laser: DPSS Laser 266 nm, 5 mW

Sample:

IgG 2 kappa human
Dilutions in Bio-rad CE-SDS Sample Buffer, ref:148-5033. Samples reduced using 20 mM TCEP in water

Reagents:

None (Naturally fluorescent compounds)

Methods:

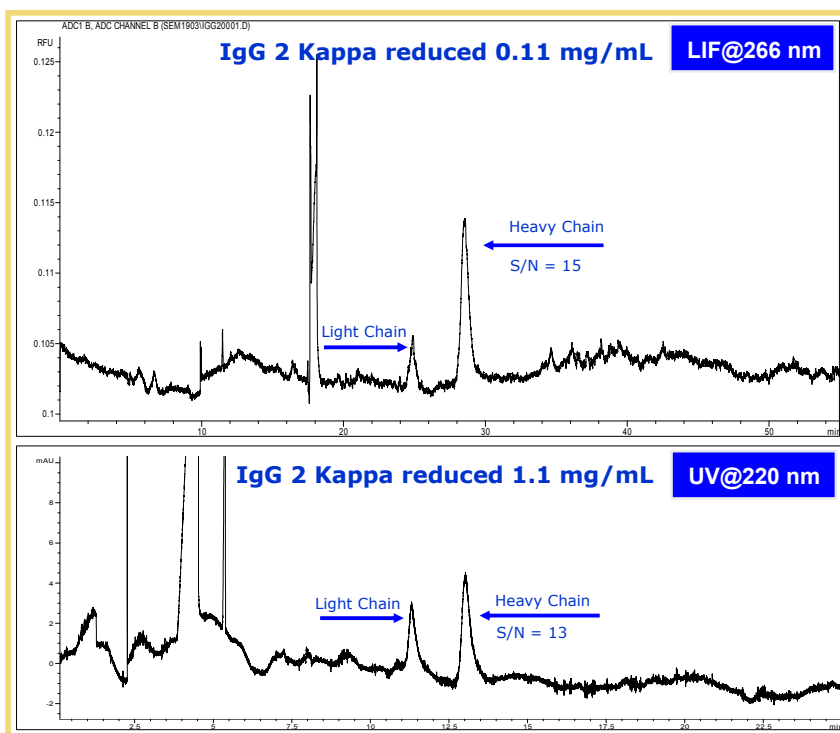
Capillary: 50 μ m ID, 55 cm effective length, 25°C
Buffer: Bio-Rad CE-SDS Run buffer ref :148-5032
Voltage: -26 kV
Injection: 30 sec. at -10 kV

We used TCEP for reduction. Two peaks corresponding to light and heavy chains are observed. However, they are not present when TCEP is not used (oxidized form of the IgG).

Limit of Detection*:

22 μ g/mL for LIF @266 nm
VS 250 μ g/mL for conv. UV@220nm

* Estimated for a S/N of 3



Source: Picometrics application lab. 07/2003