



CHEF DNA Size Standards - 8-48 kb

Catalog Number 170-3707

Contents	8-48 kb DNA size standards consist of λ cI857 Sam7 DNA digested with 5 different restriction enzymes. The standards are supplied in TE (10 mM Tris-HCl, pH 8.0, 1.0 mM EDTA, pH 8.0).
Quantity	25 μ g
Concentration:	0.2 μ g/ μ l
Storage	Long term storage -20 °C. Short term storage 4 °C.
Shelf life	One year at -20 °C. Six months at 4 °C. Use only sterile pipet tips when removing aliquots. Introduction of nucleases will shorten shelf life.
Sizes	The 8-48 kb DNA size standard consists of 13 bands: 8.3, 8.6, 10.1, 12.2, 15.0, 17.1, 19.4, 22.6, 24.8, 29.9, 33.5, 38.4, and 48.5 kb (see Figure 1). Two additional bands (1.1 and 1.5 kb) are not visible under recommended run conditions.
Use	8-48 kb DNA size standards are used to estimate molecular weights of DNA fragments separated on agarose (<1.5%) gels. Always use sterile solutions, pipet tips, and tubes. 1.0 μ l (0.2 μ g) of the 8-48 kb DNA size standard per lane is sufficient to visualize all 13 bands by ethidium bromide staining. Heat sample at 65° C for 5 minutes before loading. The fragments can be radiolabeled by DNA Pol I. Klenow Fragment (catalog number 170-3420) or by T4 DNA Polymerase.

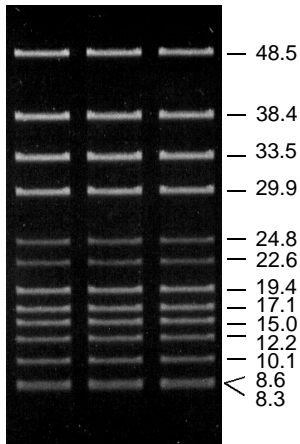


Fig. 1. 8-48 kb DNA size standard. DNA was separated on a 1.0% Pulsed Field Certified Agarose gel (162-0137) in 0.5x TBE chilled to 14 °C for 24.3 hours on a CHEF Mapper™ XA pulsed field electrophoresis system in FIGE mode. Switch time was logarithmically ramped from 0.22 seconds to 0.92 seconds with a ramp factor of 0.357 (21%). Forward voltage gradient was 9 V/cm (300V) and reverse voltage gradient was 6 V/cm (200V).