EUROMEDEX

CERTIFICATE OF ANALYSIS

DNA Ladder Fast
Low Range, ready-to-use

#01B-0213 2x 500 µl

Lot Exp. date:

Supplied with 1ml 6X Mass Loading Dye Solution

Store at room temperature (or at +4°C for periods up to 6 months. For longer periods store at -20°C)

In total 3 vials.

Description
DNA Ladder Fast, Low Range, is specially designed for fast and accurate sizing and quantification of double-stranded DNA in 48-well (or 96-well) gels as well as in commonly used agarose gels.
The Ladder consists of five blunt-ended individual fragments (in base pairs): 1500, 850, 400, 200 and 50, mixed in equal quantities. Ladder fragments are easily identified after a 8-14min run on appropriate agarose gels in a short 10-20mm linear separation and ethidium bromide or SYBR Green I staining.
The Ladder is premixed with a loading buffer and can be applied directly onto an agarose gel.

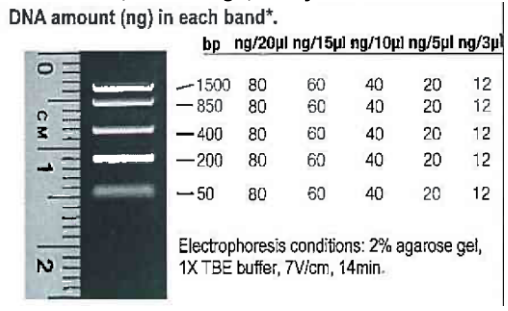
Storage and Loading Buffer
10mM Tris-HCl (pH 7.6), 10mM EDTA, 0.005% bromophenol blue and 10% glycerol.

6X Mass Loading Dye Solution
10mM Tris-HCl (pH 7.6), 0.03% bromophenol blue, 60% glycerol and 60mM EDTA.

Quality Control Assay Data
Agarose gel electrophoretic analysis of homogeneity of restriction endonucleases fragmentation patterns.
All bands are sharp and clearly distinguishable.

Recommendations for use
– Vortex gently just prior to use.
– Do not heat before loading.
For accurate quantification:
- dilute your DNA sample with the Mass Loading Dye Solution;
- load equal volumes of the DNA Ladder and an experimental sample;
- if necessary, adjust the concentration of your sample such that the expected amount of material loaded is approximately equal to that of a DNA Ladder band of a nearest size.

Amount of DNA (ng) in each band of DNA Ladder Fast, Low Range, ready-to-use



Note
The apparent intensity of bands containing equal ng quantities of DNA may differ in different horizontal sections of gel (diminishes from top to bottom). This effect derives from higher diffusion rates of the shorter fragments, resulting in the lower compactness and lower peak intensity of the corresponding bands. Among factors effecting the severity of this effect are: temperature (the lower the better), overall duration of an electrophoretic and staining procedure (shorter), gel percentage (higher). The time course of DNA fragments separation is presented in the Fig.1.

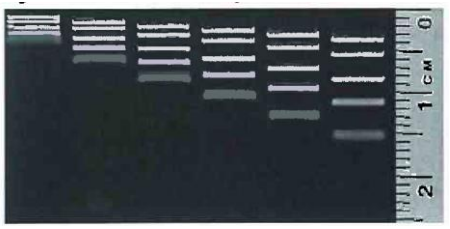


Fig 1. Time course of band separation.
Formation of diffused bands of small DNA fragments is a feature of agarose gels electrophoresis.
Electrophoresis conditions: 2% agarose gel, 1X TBE buffer, 7V/cm.

PRODUCT USE LIMITATION.
This product is developed, designed and sold exclusively for research purposes and *in vitro* use only. The product was not tested for use in diagnostics or for drug development, nor is it suitable for administration to humans or animals.

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