

## NZYDNA Ladder I

### Catalogue numbers:

MB04101, 200 lanes

MB04102, 500 lanes

### Description

NZYDNA Ladder I is a ready-to-use molecular weight marker, specially designed for easy size determination and DNA quantification. For best results using our ladder range we recommend using NZYTech agaroses.

### Sizing

NZYDNA Ladder I produce a pattern of 6 regularly spaced bands, ranging from 200 to 1800 bp.

### Quantification

When using the standard loading of 5  $\mu$ L per lane (450 ng of DNA) each band corresponds to a precise quantity of DNA (Figure 1).

### Storage conditions

NZYDNA Ladder I should be stored at -20 °C until first use. Thereafter, the product can be stored at 4 °C for up to 6 months. Avoid multiple freeze thaw cycles, as these can damage the product.

### Shipping conditions

The product can be shipped in a range of temperatures from dry ice to room-temperature.

### Product life

The expiration date indicates the period of time over which NZYTech will guarantee 100 % effectiveness of this product if handled and stored under the recommended storage conditions.

### Troubleshooting

<b>Ladder is not sinking upon loading</b>
Vortex briefly before loading
<b>To prevent degradation as a result of DNase contamination after opening</b>
Make aliquots with a small quantity of the ladder

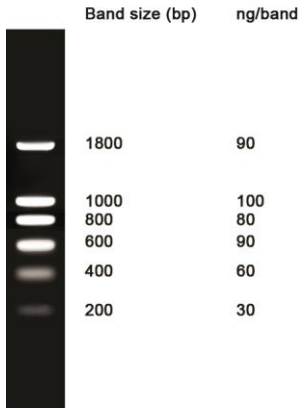
### Quality control assay

#### Nuclease assay

To test for DNase activity, 20  $\mu$ L of NZYDNA Ladder I are incubated for 14-16 hours at 37°C and DNA integrity analysed through agarose gel electrophoresis.

#### Functional assay

5  $\mu$ L of NZYDNA Ladder I is loaded onto a 1% (w/v) agarose gel with TAE buffer and separated by electrophoresis to check the intensity and the pattern of bands. It is expected to observe 6 regularly spaced bands, as presented in Figure 1.



**Figure 1.** Precisely 5  $\mu$ L of NZYDNA Ladder I were electrophoresed in a 1% (w/v) electrophoresis grade agarose (MB027) gel. The gel was buffered with TAE (v/v) and stained with GreenSafe Premium (MB13201).

V2001

### Certificate of Analysis

Assay	Result
Functional Assay	Pass
Nuclease Assay	Pass

Approved by:

Patricia Ponte  
Senior Manager, Quality Systems

*For research use only.*



Estrada do Paço do Lumiar, Campus do Lumiar - Edifício E, R/C, 1649-038 Lisboa, Portugal  
Tel.: +351.213643514 Fax: +351.217151168  
[www.nzytech.com](http://www.nzytech.com)