Check the product label for actual catalog number, lot and expiry date.

Take5™ 1 kb DNA Ladder

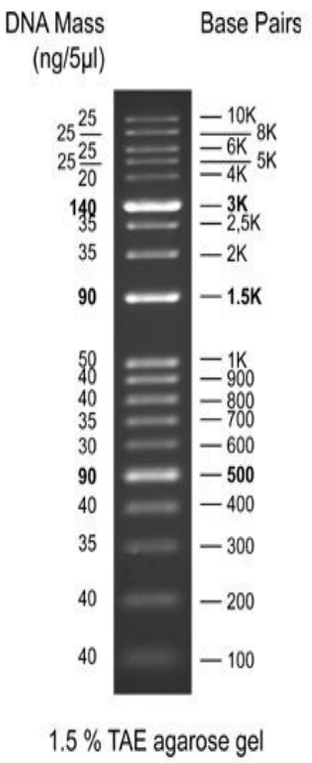
CAT.#	SIZE	COMPONENTS	COMPONENT COMPOSITION
DNL0102	200 appl.	2 x 0.5 ml - Take5™ 1 kb DNA Ladder 2 x 1 ml - Take5™ Loading Dye, 6X	Ready to load ladder contains highly purified PCR products combined with plasmid digests, supplied in 1x loading dye: 10 mM Tris-HCl (pH 8.0) 10 mM EDTA, glycerol and tracking dyes. 6X Take5™ Loading Dye includes 10 mM Tris-HCl (pH 8.0) 60 mM EDTA, glycerol and three tracking dyes (Xylene cyanol FF, Bromophenol blue, Orange G).

APPLICATIONS

- DNA size determination and approximate DNA quantification on agarose gels

BENEFITS

- Room-temperature-stable, always ready to be used
- Sharp bands, bright reference bands, indicated DNA mass
- Take5™ ladders are supplied with loading dye for DNA samples



1.5 % TAE agarose gel

Take5™ 1kb DNA Ladder

100 bp- 10 kb Range
0.5; 1.5 & 3 kb Reference
19 Bands
172 ng/µl Concentration
Ready-to-use
Tracking Dyes in the ladder with approximate migration reference in 1% agarose:

Xylene cyanol FF (~4 kb)
Bromophenol blue (~0.4 kb)
Orange G (<50 bp)

Tracking Dyes present in the Take5™ Loading Dye:

Xylene cyanol FF (~4 kb)
Bromophenol blue (~0.4 kb)
Orange G (<50 bp)

STORE

Room temp., 6 months
+4°C, 12 months / -20°C, 24 months
The storage recommendations are just guidelines, the expiry date shall be followed.

IN VITRO RESEARCH USE ONLY

PROTOCOL

The DNA Ladder is ready–to-use and designed for standard agarose electrophoresis and ethidium bromide or similar (GelRed, SybrGreen I) sensitivity dyes staining followed by UV detection.

To load a Ladder, mix it well and load following volume on the agarose gel, depending on the well size:
- For standard 5 mm size gel wells, use 5 µl of the ladder.
- For larger gel slots, use 1 µl per each millimeter of the slot width.

If you use more sensitive staining techniques than ethidium bromide, reduce the amount of the ladder at least 2X. You can use a 6:1 mixture of 1X TE buffer : 6X loading dye to dilute the ladder for an immediate use, if necessary.

To load a Sample DNA, use the supplied 6X loading dye:
- Always mix 1 volume of the loading dye with 5 volumes of the sample DNA stored in water or TE buffer. Use approximately 5 - 7 µl of this sample-dye mixture for one 5 mm gel slot.
- For larger gel slots, add 1 - 2 µl of prepared sample-dye mixture more for each additional mm of the slot width. Avoid loading more than 1µg of DNA into one gel slot.

The 1 kb ladder is recommend to be used on 1 - 1,5% agarose gels prepared in 1X concentrated TAE or TBE buffer. The same 1X buffer shall also be filled into the electrophoresis tank. Suggested electrophoresis conditions are approximately 5 - 8 V/cm.
To reduce exposer to DNA intercalating dyes, we recommend staining after electrophoresis rather than during the gel run. The gel staining can be performed in a small bath prepared by freshly mixing a drop (up to 0,5µg /ml) of ethidium bromide in 200 - 300 ml of distilled water.
Ready-to-use Ladders are not recommended to be used for radioactive or fluorescent labeling reactions, as they include dyes, glycerol and EDTA in their storage buffer.

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TECHNICAL SUPPORT
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