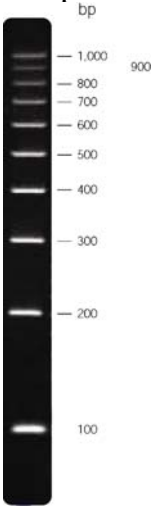
Superladder-Low 100bp Ladder

Description:



Thermo Scientific range of Superladder DNA Size Markers are derived from cloned and purified DNA fragments and therefore do not have an overload band of plasmid DNA, which may partially obscure or distort the DNA bands in adjacent lanes. Our tests prove that Superladders go further than most equivalent DNA ladders, which claim to allow more applications per tube due to the amount of DNA present.

All Superladder bands are composed of multiple repeats of a basic subunit and each band has a perfect 50% G-C content. All ladders have been designed to provide optimal readability in their respective ranges, and are ideal for precise agarose gel sizing of PCR products or restriction fragments generated in the mapping of recombinant plasmids or genomic DNA.

The 100bp ladder covers the ideal range for the majority of PCR products.

Ordering Information:				
	SLL-100	Superladder-Low 100bp	40µg	200 runs
	SLL-100L	Superladder-Low 100bp	150µg	750 runs

Kit Components: Separate tubes of 100bp Ladder and 6X loading buffer

Concentration: 100µg/ml in Tris-EDTA (TE) buffer

Size Range: 100–1,000bp

N°. of Bands: 10

Storage Conditions: Store at 4°C for routine use, -20°C for long-term storage. Stable for 12 months when stored at 4°C. Shipped on ice within the UK and on dry ice internationally and within the US.

For Research Purposes Only

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Application Notes:

1. Gel types
Superladder-Low bands can be resolved well in standard agarose gels of 2–2.5%, NuSieve 3:1 or Metaphor agarose gels up to 4%, or in 8% polyacrylamide gels (however, see 'Anomalies' below).

2. Amounts to load
Typically, 2.0µl of 100bp Ladder, plus 2.5µl of 6X loading buffer, should be used to make up 15µl of sample buffer for loading, e.g. into ~5mm wide x 3mm deep wells. This translates to ~20ng/band, giving sharp, easily visible and photographed bands. Adjustments can be made for different well sizes and individual preferences.

3. Use of modified loading buffer
The 6X gel loading buffer produces a final 5mM EDTA in the samples to be electrophoresed, and can be added directly to most restriction digests, PCR and other reactions prior to electrophoresis.

4. DNA loading
For precise size determinations, always load the smallest practical amount of sample DNA e.g. 10–20ng of a single fragment is readily visible and will form a sharp, accurately sizeable band.

5. Well thickness
For optimum resolution of DNA bands, use only properly formed sample wells, <1mm in thickness.

6. Sample salt concentrations
It is very important to carefully match the salt composition of the ladder mixture to that of the samples to be electrophoresed in order to obtain accurate size determinations. One useful technique for obtaining extremely precise sizing of sample fragments is to co-electrophorese the sample and ladder in the same well (i.e. same loading mixture). Running ladder-only and sample-only lanes will aid in interpretation.

7. Anomalies
The 100bp ladder bands may show a double- or triple-banding pattern in polyacrylamide gels under some running conditions.

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