Gelred-prestained DNA Ladder (100-1500bp)

R751624

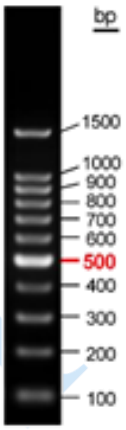
Store at 2-8℃（-20℃ for long term storage）

Introduction:

The DNA Ladder consists of 11 individual chromatography-purified DNA fragments ranging in size from 100 bp to 1500 bp. The band at 500bp is included for easy orientation. The ladder is stored in a 1xLoading Buffer, with dense bands that require high concentration gel and low voltage electrophoresis. It is suitable for accurately confirming the size of DNA fragments.

This product and the supporting 5xLoading Buffer both contain Gelred nucleic acid dye. When used together, after electrophoresis, the results can be directly observed under UV light without subsequent staining.

This product is not suitable for polyacrylamide gel electrophoresis.



5μL/lane，1 x TAE buffer，1.5% agarose

Usage method:

1. Prepare an agarose gel of appropriate concentration without any nucleic acid dye.
2. The gel concentration has a significant impact on DNA electrophoresis. The recommended agarose gel concentration for this product is 1.5%–2.0%.
3. It is recommended to use 1×TAE buffer, and the electrophoresis voltage should not exceed 10 V/cm.
4. For common 3.5 mm loading wells, the recommended dosage of DNA marker is 3–5μL. For wide gel wells, the sample volume should be appropriately increased.
5. Mix the sample to be tested with the supporting 5 × Loading Buffer at a ratio of approximately 4:1, and then add it to the gel loading well.
6. Electrophorese to an appropriate distance:
7. Since Gelred binds tightly to DNA, the full length of the gel can be utilized for longer electrophoresis, provided that the smallest fragments do not run off the gel, which is beneficial for the electrophoretic separation of small fragments. Generally, the bromophenol blue indicator band should be no less than 1 cm away from the gel edge.
8. After electrophoresis, observe the electrophoretic bands under a UV lamp.
9. The 5×Loading Buffer included in the product is used for sample loading after mixing with the sample to be tested, and contains double indicators of bromophenol blue and xylene cyanol.
10. If there are a large number of samples that can be directly loaded for electrophoresis testing, it is recommended to use the Gelred gel preparation method for testing. Pre-mixing

samples is unnecessary, which can greatly save experimental time.

Precautions

1. This product is already preserved in 1x Loading Buffer and can be directly used for electrophoresis
2. If ethidium bromide (EB), a strong carcinogen, is used for DNA electrophoresis, please take care to avoid the contamination of this product by EB during frequent uses. Pre-stained proteins have different apparent molecular weights in different buffer systems. If non pre stained proteins are calibrated in advance in this buffer system, the protein molecular weight can be roughly determined.
3. 5x Loading Buffer can be used for sample detection, store at 2-8℃ and protect from light.