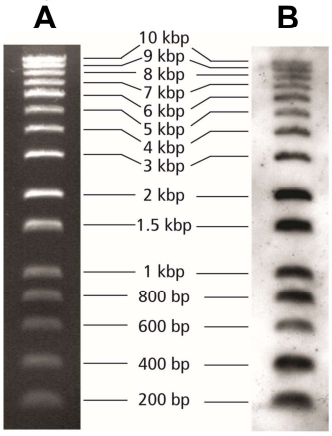
CERTIFICATE OF ANALYSIS

Product **BIOTINYLATED DNA MOLECULAR WEIGHT MARKER**

Catalog MB-1302 Lot No. ZF0717

Amount 25 µg (approximately 50 loadings)

Biotinylated DNA (b-DNA) molecular weight markers provide a simple means for estimating the size of DNA fragments directly from a Southern blot. The b-DNA ladder has been 5' end-labeled with biotin using the 5' EndTag™ Kit (MB-9001). The 1 kb and 2 kb bands contain more DNA than the other bands for easy identification.



The banding pattern and band sizes are shown on the left. 5 µl (500 ng) of the ready-to-use ladder were loaded on a 0.5% agarose gel. The gel was run in 1x TBE at 10 V/cm, stained with ethidium bromide (A) and blotted onto nylon membrane using standard methods. B-DNA bands were detected using the UltraSNAP™ Kit (an alkaline phosphatase-streptavidin conjugate followed by chemiluminescent substrate) (B).

NOTES:

1. The marker is provided at a concentration of 100 ng/µl in 20 mM Tris, pH 7.5, 2 mM EDTA, 2% Ficoll, 0.08% sodium azide, 0.02% bromophenol blue. Store the b-DNA marker at 4° C. For long term storage, -20° C is recommended.

2. The recommended loading volume per lane is 5 µl (500 ng).

3. The bromophenol blue tracking dye migrates between the 200 bp and 400 bp bands on a 0.5% agarose gel.

4. The fragments can be visualized in the gel by staining the gel with ethidium bromide. Soak the gel in a solution of 0.5 µg/ml ethidium bromide in distilled water for 30 minutes after electrophoresis and visualize the gel under UV light. Destaining with distilled water for 30 minutes may improve the visualization of bands. (Caution: Ethidium bromide is a powerful mutagen. Use gloves and other appropriate safety measures with this compound.)

5. Sample DNA, along with the biotinylated marker, can be transferred from the gel to nylon or nitrocellulose membrane and hybridized with biotinylated probe by standard northern or Southern blotting procedures. After blocking (eg. 10x Casein Solution, SP-5020 or Animal-Free Blocker™, SP-5030), the membrane is incubated in the appropriate enzyme-conjugated streptavidin (eg. alkaline phosphatase-streptavidin, SA-5100). Visualization of signal is achieved by incubation in colorimetric substrate (eg. BCIP/NBT, SK-5400) or chemiluminescent substrate (eg. DuoLuX™, SK-6605).

Vector Laboratories, Inc., 30 Ingold Road, Burlingame, CA 94010 U.S.A.
Tel: (650)697-3600 • Fax: (650)697-0339 • Email: vector@vectorlabs.com • Web: www.vectorlabs.com