Datasheet for MB-102-0025

DNA (Calf Thymus)

Overview

Description:	DNA (Calf Thymus) (Packaged 5 x 5 mg) - MB-102-0025
Item No.:	MB-102-0025
Size:	5 x 5 mg
Applications:	Other

Product Details

Synonyms:	DNA Calf Thymus, ready-to-use solution of calf thymus DNA
Reagent Type:	DNA

Target Details

Purity/Specificity:	Specially prepared from Calf thymus by a method to remove contaminating RNA and protein.

Application Details

Suggested Applications:	Other (Based on references)
Application Note:	This product is a convenient, ready-to-use solution of calf thymus DNA especially prepared for use in the preparation of pre-hybridization and hybridization solutions and as a DNA carrier in yeast transformation protocols and other related methods. This product is also an excellent substrate for deoxyribonuclease or DNA polymerase. This solution contains sheared single stranded DNA molecules that can be used to block the non-specific attachment of probe DNA to the surface of a membrane (Southern) or to increase yeast transformation efficiency. Prepared by a modification of the method of Emanuel and Chaikoff, JBC 203, 164 (1953) from calf thymus DNA by mechanical shearing and heat denaturation to an average size of 100 to 2000 base pairs. To reverse any renaturation occurring during storage this material should be briefly boiled and rapidly chilled prior to use.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.

Other:	A260/A280: 1.9 % Hyperchromocity: 31.4 % Nitrogen: 14.2 % Phosphorus: 7.7

Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	5.0 mg/mL by dry weight
Buffer:	0.01 M Tris Chloride, 0.001 M EDTA, pH 7.6

Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vials at -20° C upon receipt.
Expiration:	Expiration date is six (6) months from date of receipt.

Images

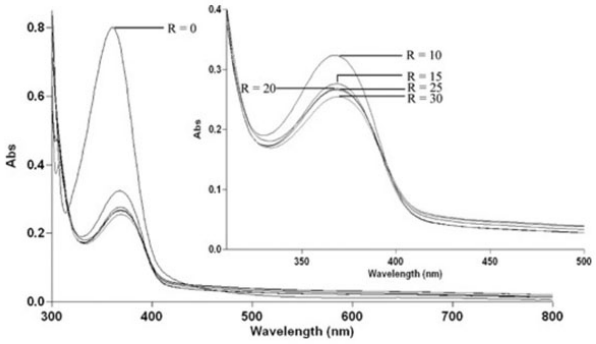
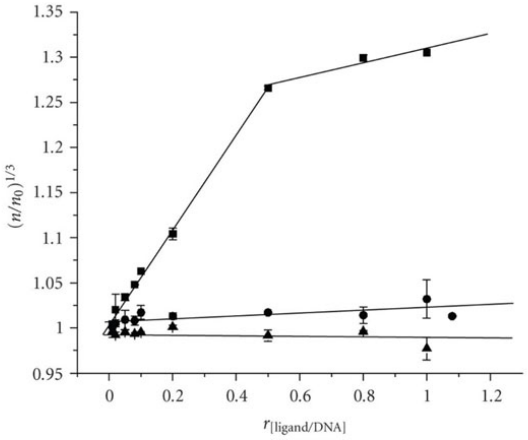
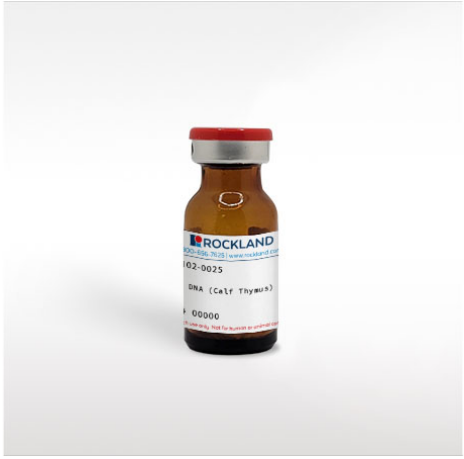


Figure
Absorption spectra of 50 µM [Cu(HBnz2)Cl] in 5 mM Tris-HCl buffer at pH 7.1, in the absence (R = 0) and presence of increasing amounts of CT-DNA (p/n MB-102-0025). The ratio, R ([DNA]/[Cu(HBnz2)Cl]) = 10, 15, 20, 25, 30. Inset: expanded view of absorption changes of 50 µM [Cu (HBnz2)Cl] in the presence of increasing amounts of DNA at the respective R values. Fig 4. PMID: 22134528.



ELISA
Viscosity changes of calf thymus DNA (p/n MB-102-0025) 1mM with increasing concentrations (0.1mM to 1mM) of ethidium bromide (square), NiCR-2H (circle), and NiCR (triangle), respectively. Experimental conditions: 10mM Phosphate buffer pH7.0 at 25°C. Fig 3. PMID: 20671951.



Bottle
DNA (Calf Thymus) (Packaged 5 x 5 mg)

References

- Hattori-Muroi K et al. Dietary soy shapes the microbiome to induce commensal-specific T follicular helper cells and IgA production. *Immunity.* (2026)
- Ma Y. et al. Quantitation of DNA by nuclease P1 digestion and UPLC-MS/MS to assess binding efficiency of pyrrolobenzodiazepine. *J Pharm Anal.* (2020)
- Ali SMH et al. Copper (II) complexes of substituted salicylaldehyde dibenzyl semicarbazones: synthesis, cytotoxicity and interaction with quadruplex DNA. *Dalton Trans.* (2014)
- Lee WY ey al. DNA binding and nucleolytic properties of Cu(ii) complexes of salicylaldehyde semicarbazones. *Metallomics.* (2012)
- Chitranshi P et al. Investigation on the interactions of NiCR and NiCR-2H with DNA. *Bioinorg Chem Appl.* (2010)

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.