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**INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

SN/T 2497.19-2010

**Test method of import and export dangerous chemicals. Part
19: Test of Northern Blot**

进出口危险化学品安全试验方法 第19部分：Northern Blot实验
(English Translation)

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Foreword

SN/T 2497 "Test Methods for Chemical Safety & Exports dangerous" series of standards is divided into 29 parts.

--- Part 1. mammalian liver cells in vivo DNA synthesis (UDS) test;

--- Part 2. plaque-forming cells (PFC) test;

--- Part 3. Large Zhuan reproduction test;

--- Part 4. *Saccharomyces cerevisiae* mitotic recombination test;

--- Part 5. testicular cells UDS test;

--- Part 6. mammalian cells in vitro sister chromatid exchange test;

--- Part 7. mouse ear swelling test;

Part --- Article 8. fossa lymph node assay;

--- Part 9. Determination of serum hemolysin test;

Part --- Article 10. T lymphocyte proliferation assay test;

--- Part 11. germline mutation assay;

--- Part 12. single cell gel electrophoresis test;

--- Part 13. fluorescence in situ hybridization;

Part --- Article 14. SDS- polyacrylamide gel electrophoresis;

--- Part 15. PCR-SSCP experiment;

Part --- Article 16. Western-Blot test;

- Part 17. Behavior of mammalian toxicology tests;
- Part 18. Detection of DNA adducts;
- Part 19. NorthernBlot experiment;
- Part 20. Bradford protein assay;
- Part 21. agarose gel electrophoresis;
- Part 22. T_m value determination method of DNA;
- Part 23. organelle separation experimental methods;
- Part 24. cellular immunity in vitro assay method;
- Part 25. humoral immune function tests;
- Part 26. macrophage function tests;
- Part 27. Flow cytometry of apoptosis;
- Part 28. Application shuttle plasmid mutations Inspection;
- Part 29. Biochemical Oxygen Demand (BOD) was measured.

This is Part 19 SN/T 2497 series of standards.

The partial modification of a "Molecular Cloning, A Laboratory Manual," Second Edition, its technical contents and said exactly the same method in the standard text format Ceremony Press GB/T 1.1-2000 made editorial changes.

This section proposed and managed by the National Certification and Accreditation Administration Committee.

This section is responsible for drafting unit. People's Republic of China Tianjin Entry-Exit-Entry Inspection and Hunan People's Republic of China Quarantine Bureau.

1 Scope

SN/T 2497 provisions of this part of the import and export of hazardous chemicals and materials Reagents NorthernBlot experiments, the main instrument Equipment, test procedures and results analysis.

This section applies to the detection of gene transcription import and export of hazardous chemicals caused abnormalities.

2.1 Terms and Definitions

The following terms and definitions apply to this section.

2.1.1

It can react with a particular nucleotide sequence complementary to specific hybridization, and then be detected by methods known specific labeled nucleotide chain.

2.2 Acronyms

The following abbreviations apply to this section.

2.2.2 RNA ribonucleic acid

Principle 3

Under denaturing conditions RNA samples to be tested by agarose gel electrophoresis separation, according to their position in the gel and then transferred to nylon membrane or nitrocellulose filter membrane, DNA, or RNA probe immobilized before or other marker isotope labeled hybridization and Autoradiography. If the probe sequence complementary to the analyte contained, both by the principle of complementary base binding, thus demonstrating the RNA fragments to be detected and their relative size.

4 Reagents and materials

Unless otherwise specified, all reagents were of analytical grade, sterile distilled water was used or ultrapure water.

4.1 5 x formaldehyde gel electrophoresis buffer. 0.1mol/LMOPS (pH value 7.0), 40mmol L sodium acetate /, 5mmol/LEDTA (PH 8.0).

4.2

formaldehyde gel loading buffer. 50% glycerol, 1mmol/LEDTA (pH 8.0), 0.25% bromophenol blue, 0.25% xylene Green FF.

4.3

ethidium bromide solution. 0.5μL/mL, formulated with 0.1mol/L ammonium acetate.

4.4 20 x SSC solution. 175.3gNaCl dissolved in 800mL of water and 88.2g sodium citrate, add a few drops of 10mol/LNaOH the pH was adjusted to 7.0, add water to 1L, after dispensing autoclaving.

4.5 2 x SSC, 20 x SSC solution by diluting made.

4.6

Hybridization solution. 50% formamide, 5 x SSPE, 2 x Denhardt reagent, 0.1% SDS.

5 Equipment

5.1

electrophoresis.