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

SN/T 2497.13-2010

**Test method of import and export dangerous chemicals. Part
13: Florescence in-situ hybridization**

进出口危险化学品安全试验方法 第13部分：荧光原位杂交试验

(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 13 SN/T 2497 series of standards.

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 main reagents and materials import and export of hazardous chemicals fluorescence in situ hybridization experiments, the main instrument, Test procedures, test results and test report.

This section applies to the import and export of hazardous chemicals by fluorescence in situ hybridization.

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.

2.2.1

2.2.2

PBS phosphate buffered saline 2.2.3 Principle 3 Fluorescence in situ hybridization (FlorescenceIn-SituHybridization, called FISH) is a use of non-radioactive fluorescent letter Number of samples for testing in situ hybridization technique. Intuitive and fluorescence in situ hybridization signals with high sensitivity it, security, fluorescent signal the combination of high accuracy, DNA DNA probe and the test sample by a fluorescence-labeled in situ hybridization, fluorescence microscopy to identify and count the fluorescent signal, thereby chromosomal or genetic abnormalities tissue samples for testing.

4 Reagents and materials

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

4.1

PBS. dissolved in 800mL of distilled water 8gNaCl, 0.2gKCl, 1.44gNa₂HPO₄ and 0.24gKH₂PO₄, with HCl the solution was adjusted to pH 7.4, add water to 1L, at 1.034 x 10⁵Pa (151bf/in²) autoclaved 20min, stored at room temperature.

4.2 20 x SSC. 175.3gNaCl dissolved in 800mL of water and 88.2g sodium citrate, add a few drops of 10mol/LNaOH solution Adjusting the pH to 7.0, add water to 1L, after dispensing autoclaving.

4.3 2 x SSC, 20 x SSC solution by diluting made.

4.4

denaturing solution. 4mL20 x SSC; 8mL distilled water; 28mL formamide. Each freshly prepared.

4.5

Hybridization solution. 5 x SSC, 50% formamide (5 x Denhart's, 100μL be tested DNA, 10% dextran sulfate).