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

SN/T 2497.10-2010

**Test method of import and export dangerous chemicals. Part
10: Determination of T lymphocyte proliferation function**

进出口危险化学品安全试验方法 第10部分：T淋巴细胞增殖功能测定试验
(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 10 SN/T 2497 series of standards.

The partial modification of the use of "Toxicology test methods and techniques" immune toxicology research method, technical content and the method described above Exactly the same, in a standard text format according to 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 This section specifies the terms and definitions T lymphocyte proliferation assay test, the test principle, test methods and test results.

This section applies to Test to affect the import and export of hazardous chemicals on T lymphocyte proliferation function.

2 Normative references

The following documents contain provisions which, through reference SN/T 2497 to the present, constitute provisions of this section. Any documents dated, its all subsequent

amendments (excluding corrections) or revisions do not apply to this section, however, encourage an agreement under this section Parties to study the latest versions of these documents. Undated document, the latest versions apply to this section.

GB 14924.1 animal feed common quality standards GB 14925 laboratory animal environment and implementation

3.1 Terms and Definitions

The following terms and definitions apply to this section.

3.1.1

T lymphocyte precursors in the bone marrow, then migrate to the thymus and mature in the thymus, the thymus lymphocytes sources play in the body fine Cellular immunity and immune regulation, and other functions.

3.2 Acronyms

The following abbreviations apply to this section.

3.2.1

MTT

MTT 3- (4,5-thiazol-2-methyl) -2,5-diphenyl tetrazolium bromide

4 Test principle

T cells were cultured in vitro by mitogen (such as Con A) stimulation, there may be cell volume increases, metabolism, egg White and nucleic acid synthesis, namely lymphoblastoid cell transformation and proliferation. The level of lymphocyte transformation rate may reflect the body's immune cells water Flat, it can be measured as an indicator of immune function.

MTT assay is a cell survival and growth of the detection method. Its detection principle for live-cell mitochondria succinate dehydrogenation MTT reduction exogenous enzyme to make a water-insoluble crystalline blue-purple formazan and deposited in cells, dead cells can not. Dimethyl Sulfoxide to dissolve formazan cells, measured by ELISA absorbance detector at 490nm wavelength, can reflect the number of viable cells the amount. Within a certain range of cells, an amount proportional to the number of cells MTT crystal formation.

5.1 Test Animals

Mice or rats, according to the test animals need to select a different weight. Experimental animal breeding conditions and should be consistent with GB 14924.1 GB 14925 relevant provisions.