

Analyte Specific Reagent.

Analytical and performance characteristics are not established.

SPECIFICITY

The TCR is a molecular complex which comprises two units: a recognition unit, composed of either alpha-beta or gamma-delta heterodimer, which are present on the cell surface in a mutually exclusive manner, and, a transducing unit, the CD3 complex, common to alpha-beta and gamma-delta heterodimers, which triggers the T cell when the recognition unit is occupied by the antigen.

The recognition unit recognizes foreign antigens and the diversity necessary for this function of recognition is generated by somatic recombination of the TCR genes (1 - 3). There are four TCR gene loci (alpha, beta, gamma and delta). Each of them is composed of several V (variable) segments, coding for about 90 amino acids, very short D (diversity) segments (α and delta loci only), and short J (joining) segments (about 15 amino acids), and one or two C (constant) segments (4, 5).

Most of T cells express the alpha/beta TCR (T cell receptor) protein and a small population of T cells expresses the gamma/delta TCR, which usually has a double negative (CD4/CD8) phenotype. Gamma/delta T-cells are normally the first line of defence at epidermal and epithelial surfaces and they represent 10-12% of lymphocytes in the spleen (6).

The IMMU510 monoclonal antibody recognizes all the gamma/delta T cells regardless of the variable genes or junction regions they express as assessed by flow immunofluorescence studies on polyclonal gamma/delta T-cell lines as well as gamma/delta T-cell clones (7 - 11).

REAGENT

IOTest Anti-TCR Pan γ/δ -PE
Conjugated antibody
PN IM1418U - 1 mL - Liquid - 20 μ L/test

| | |
|-------------------------|--|
| Clone | IMMU510 |
| Isotype | IgG1, Mouse |
| Immunogen | Soluble gamma/delta T-cell receptor |
| Hybridoma Source | X63 x balb/c Ascites fluid or supernatant of in vitro cultured hybridoma cells. |
| Purification | Affinity chromatography |
| Conjugation | R Phycoerythrin (PE) |
| Molar Ratio | PE / Ig : 0.5 - 1.5 |
| Fluorescence | Excites at 488 nm Emits at 575 nm |

REAGENT CONTENTS

This antibody is provided in phosphate-buffered saline, containing 0.1% sodium azide and 2 mg/mL bovine serum albumin.

STATEMENTS OF WARNING

1. This reagent contains 0.1% sodium azide. Sodium azide under acid conditions yields hydrazoic acid, an extremely toxic compound. Azide compounds should be flushed with running water while being discarded. These precautions are recommended to avoid deposits in metal piping in which explosive conditions can develop. If skin or eye contact occurs, wash excessively with water.
2. Specimens, samples and all material coming in contact with them should be considered potentially infectious and disposed of with proper precautions.
3. Never pipet by mouth and avoid contact of samples with skin and mucous membranes.
4. Do not use antibody beyond the expiration date on the label.
5. Do not expose reagents to strong light during storage or incubation.
6. Avoid microbial contamination of reagents or incorrect results might occur.
7. Use good laboratory practices when handling this reagent.

STORAGE AND HANDLING CONDITIONS AND STABILITY

This reagent is stable up to the expiration date when stored at 2 – 8°C. Do not freeze. No reconstitution is necessary. This monoclonal antibody may be used directly from the vial. Bring reagent to 18 – 25°C prior to use.

SELECTED RESEARCH REFERENCES

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human tissues" 1989, *J Immunol.*, 143, 2480-2488.

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