SPECIFICITY
The CD3 antigen is a complex of 5 invariable polypeptidic chains; γ, δ, ε, ζ, and η whose molecular weights are respectively: 25-28, 21, 20, 16 and 22 kDa. The ζ chain occurs in the CD3 complex as a disulphide linked homodimer or as a heterodimer with eta chain. CD3 is part of a bigger complex which includes the T Cell Receptor (TCR) (1). This complex is expressed by mature T cells and by thymocytes. T cell activation may be induced when a foreign antigen is presented to the TCR through MHC complex (2).

UCHT1 antibody has a mitogenic effect on T lymphocytes. It does not react with those T cells lacking the TCR. UCHT1 monoclonal antibody (mAb) reacts with the ε chain of the CD3 complex (3).

It was used as a CD3 reference antibody during the HLDA 6. The UCHT1 mAb has been assigned to the CD3 cluster of differentiation at the first International Workshop on Human Leucocyte Differentiation Antigens in Paris, in 1982 (4).

STATEMENT OF WARNINGS
1. Specimens, samples and all material coming in contact with them should be handled as if capable of transmitting infection and disposed of with proper precautions.
2. Never pipet by mouth and avoid contact of samples with skin and mucous membranes.
3. Do not use antibody beyond the expiration date on the label.
4. Avoid microbial contamination of reagents or incorrect results might occur.
5. Use good laboratory practices when handling this reagent.

STORAGE CONDITIONS AND STABILITY
This freeze-dried form may be stored at 2 – 8°C until the expiration date stated on the vial label.
No preservative has been added.

REAGENT PREPARATION
Depending of usage, reconstitute with 1 mL of distilled water, or with 0.1% sodium azide (w/v). The reconstituted form including 0.1% sodium azide may be stored for up to one month at 2 – 8°C. The reconstituted form without sodium azide can be stored at –20°C or less, until the expiration date stated on the vial label. In this case, aliquotting is recommended to avoid multiple freezing / thawing cycles.

PROCEDURE
For each application, it is recommended to establish the right range of antibody dilutions to be used for the experiment.

APPLICATION
Studies of CD3 positive cells by flow cytometry.
This antibody is also useful for intracellular studies of the CD3 ε chain using saponin-based cell membrane permeabilization reagents like IntraPrep™ (PN IM1288 and IM1289).

SELECTED RESEARCH REFERENCES

PRODUCT AVAILABILITY
Monoclonal Antibody CD3
PN IM1304 – Purified – Freeze-dried – 0.2 mg
For additional information in the USA, call 800-526-7694.
Outside the USA, contact your local Beckman Coulter representative.
www.beckmancoulter.com

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