CD3 Monoclonal FITC Antibody (Clone RIV9)
Item No. 10231

Contents: This vial contains 100 µg of fluorescein-labeled IgG3 in 500 µl PBS, pH 7.2, containing 50% glycerol, 0.1% BSA, and 0.02% sodium azide.

Host: Mouse, clone RIV9

Cross Reactivity: (+) Human; other species not tested

Stability: ≥1 year at -20°C

Applications: Flow cytometry (FC), immunofluorescence (IF), and immunohistochemistry (IHC) (frozen sections); the recommended starting dilution for FC is 5 µg/ml (25 µl/test) and 10-20 µg/ml for IF and IHC (frozen sections). Not recommended for IHC (paraffin-embedded tissue) or western blot. Other applications were not attempted and therefore optimal working dilutions should be determined empirically.

The CD3 antigen is a specific T-cell marker expressed on thymocytes and mature T-lymphocytes. The CD3 complex contains CD3γ (Mr = 26 kDa), CD3δ (Mr = 21 kDa), and CD3ε (Mr = 20 kDa).1 CD3 is detected on the surface membrane or in the cytoplasm of T-cells from peripheral blood, depending on the state of cell differentiation. In addition to detection of T-cells from peripheral blood, the CD3 antibody can be used for detection of reactive T-cells in lymphoid infiltrates in tissues and neoplastic T-cells in non-Hodgkin’s lymphomas of T-cell lineage.2,3

References
2. Ceuppens, J.L. and Van Vaekc, F. Human T cell activation induced by a monoclonal mouse IgG3 anti-CD3 antibody (RIV9) requires binding of the Fc part of the antibody to the monocytic 72-kDa high-affinity Fc receptor (FcRI). Cell. Immunol. 118, 136-146 (1989).

Related Products
For a list of related products please visit: www.caymanchem.com/catalog/10231

Figure 1: Human peripheral blood stained without and with 5 µg/ml CD3-FITC antibody (30 minutes stain/lyse/read method)