Datasheet for ABIN1981855

# anti-CD3 antibody (Biotin)

2 Images | 10 Publications

Go to Product page

## Overview

| | |
|---|---|
| Quantity: | 0.1 mg |
| Target: | CD3 |
| Reactivity: | Mouse |
| Host: | Armenian Hamster |
| Clonality: | Monoclonal |
| Conjugate: | This CD3 antibody is conjugated to Biotin |
| Application: | Flow Cytometry (FACS), Immunoprecipitation (IP), Immunohistochemistry (Frozen Sections) (IHC (fro)), Immunocytochemistry (ICC) |

## Product Details

| | |
|---|---|
| Immunogen: | Mouse BM10-37 cytotoxic T lymphocytes |
| Clone: | 145-2C11 |
| Isotype: | IgG kappa |
| Specificity: | The Armenian hamster monoclonal antibody 145-2C11 reacts with an extracellular epitope of murine CD3 (epsilon subunit). This antibody is commonly used as a phenotypic marker for murine T cells. |
| Cross-Reactivity (Details): | Mouse |
| Purification: | Purified antibody is conjugated with biotin LC-NHS ester under optimum conditions and unconjugated antibody and free biotin are removed by size-exclusion chromatography. |

## Target Details

| | |
|---|---|
| Target: | CD3 |
| Alternative Name: | CD3 (CD3 Products) |
| Background: | CD3 antigen, epsilon polypeptide,CD3 complex is crucial in transducing antigen-recognition signals into the cytoplasm of T cells and in regulating the cell surface expression of the TCR complex. T cell activation through the antigen receptor (TCR) involves the cytoplasmic tails of the CD3 subunits CD3 gamma, CD3 delta, CD3 epsilon and CD3 zeta. These CD3 subunits are structurally related members of the immunoglobulins super family encoded by closely linked genes on human chromosome 11. The CD3 components have long cytoplasmic tails that associate with cytoplasmic signal transduction molecules. This association is mediated at least in part by a double tyrosine-based motif present in a single copy in the CD3 subunits. CD3 may play a role in TCR-induced growth arrest, cell survival and proliferation. The CD3 antigen is present on 68-82 % of normal peripheral blood lymphocytes, 65-85 % of thymocytes and Purkynje cells in the cerebellum. It is never expressed on B or NK cells. Decreased percentages of T lymphocytes may be observed in some autoimmune diseases.,CD3E, T3E, TCRE |
| Gene ID: | 12501 |
| UniProt: | P22646 |
| Pathways: | TCR Signaling, Ubiquitin Proteasome Pathway |

## Application Details

| | |
|---|---|
| Application Notes: | Flow cytometry: Recommended dilution: 1-2 µg/mL. |
| Comment: | The purified antibody is conjugated with Biotin-LC-NHS under optimum conditions. The reagent is free of unconjugated biotin. |
| Restrictions: | For Research Use only |

## Handling

| | |
|---|---|
| Concentration: | 1 mg/mL |
| Buffer: | Phosphate buffered saline (PBS), pH 7.4, 15 mM sodium azide |
| Preservative: | Sodium azide |
| Precaution of Use: | This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only. |
| Handling Advice: | Do not freeze. Do not use after expiration date stamped on vial label. |

## Handling

| | |
|---|---|
| Storage: | 4 °C |
| Storage Comment: | Store at 2-8°C. Do not freeze. |

## Publications

Product cited in:

Han, Murray-Segal, Gershenzon, Zhang, Hodder, Pietersz, Mottram: "Idarubicin-145-2C11-F(ab')2 promotes peripheral tolerance and reduces chronic vascular disease in mouse cardiac allografts." in: **Transplant immunology**, Vol. 7, Issue 4, pp. 207-13, (2000) (PubMed).

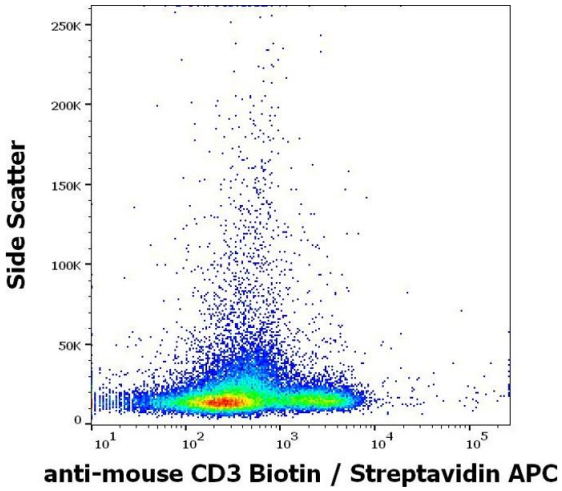
Kearse: "Calnexin associates with monomeric and oligomeric (disulfide-linked) CD3delta proteins in murine T lymphocytes." in: **The Journal of biological chemistry**, Vol. 273, Issue 23, pp. 14152-7, (1998) (PubMed).

Kinnaert, Pradier, Bournonville, Habrant, Goldman, Van Geertruyden et al.: "Role of CD18-dependent and CD18-independent mechanisms in the increased leukocyte adhesiveness and in the variations of circulating white blood cell populations induced by anti-CD3 monoclonal ..." in: **Transplant international : official journal of the European Society for Organ Transplantation**, Vol. 9, Issue 4, pp. 386-91, (1997) (PubMed).

Henrickson, Reid, Bellet, Sawchuk, Hirsch: "Comparison of in vivo efficacy and mechanism of action of antimurine monoclonal antibodies directed against TCR alpha beta (H57-597) and CD3 (145-2C11)." in: **Transplantation**, Vol. 60, Issue 8, pp. 828-35, (1995) (PubMed).

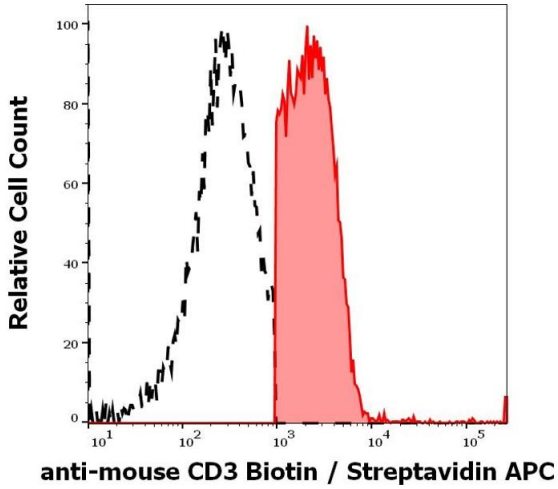
Vossen, Tibbe, Kroos, van de Winkel, Benner, Savelkoul: "Fc receptor binding of anti-CD3 monoclonal antibodies is not essential for immunosuppression, but triggers cytokine-related side effects." in: **European journal of immunology**, Vol. 25, Issue 6, pp. 1492-6, (1995) (PubMed ).

There are more publications referencing this product on: Product page




**Flow Cytometry**

**Image 1.** Flow cytometry surface staining pattern of murine splenocyte suspension stained using anti-mouse CD3 (145-2C11) Biotin antibody (concentration in sample 8 µg/mL, Streptavidin APC).




**Flow Cytometry**

**Image 2.** Separation of murine CD3 positive splenocytes (red-filled) from CD3 negative splenocytes (black-dashed) in flow cytometry analysis (surface staining) of murine splenocyte suspension stained using anti-mouse CD3 (145-2C11) Biotin antibody (concentration in sample 8 µg/mL, Streptavidin APC).