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Mouse Anti-CD8 Monoclonal Antibody

CLX10AP
CLX10B
CLX10F

CLX10PE
CLX10PCP
CLX10APC

Clone: MEM-31

Isotype: Mouse IgG2a

Specificity:

The antibody MEM-31 recognizes a conformationally-dependent epitope of CD8, a cell surface glycoprotein found on most cytotoxic T lymphocytes that mediates efficient cell-cell interactions within the immune system. CD8 is a disulfide-linked dimer and exists as a CD8 alpha/alpha homodimer or CD8 alpha/beta heterodimer (each monomer approx. 32-34 kDa). The antibody does not react with formaldehyde-fixed cells; negative in Western Blotting application. HLDA III; WS Code T 575

Immunogen: Crude thymus membrane fraction.

Species Reactivity: Human.

Application: Flow Cytometry, Immunoprecipitation and Mass Cytometry.

Conjugate Preparation:

The purified antibody is conjugated with Biotin-LC-NHS, Fluorescein isothiocyanate (FITC), R-Phycoerythrin (PE), Peridinin-chlorophyll-protein complex (PerCP) or cross-linked Allophycocyanin (APC) under optimum conditions. The conjugates are purified by size-exclusion chromatography and adjusted for direct use (FITC, PE, APC, PerCP). No reconstitution is necessary.

Presentation:

Purified: 0.1 mg (1 mg/mL) purified IgG buffered in PBS with 15 mM sodium azide, approx. pH 7.4. (Purified by protein-A affinity chromatography; purity > 95% by SDS-PAGE).

Biotin: 0.1 mg (1 mg/mL) of Biotin conjugated IgG buffered in tris buffered saline (TBS) with 15 mM sodium azide, approx. pH 8.0.

FITC: 2 mL of FITC conjugated IgG buffered in stabilizing phosphate buffered saline (PBS) solution containing 15mM sodium azide. Sufficient for 100 tests.

PE: 2 mL of PE conjugated IgG buffered in stabilizing phosphate buffered saline (PBS) solution containing 15mM sodium azide. Sufficient for 100 tests.

PerCP: 1 mL of APC conjugated IgG buffered in stabilizing phosphate buffered saline (PBS) solution containing 15mM sodium azide. Sufficient for 100 tests.

APC: 1 mL of APC conjugated IgG buffered in stabilizing phosphate buffered saline (PBS) solution containing 15mM sodium azide. Sufficient for 100 tests.

Continued Overleaf.....

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Storage / Stability:

Store in the dark at 2-8°C. Do not freeze all formats. Avoid prolonged exposure to light of conjugates. Do not use after expiration date stamped on vial label.

Usage:

Recommended dilutions for Flow Cytometry analysis of human blood cells:

Purified: 1 µg/ml

Biotin: 1:2500 dilution

FITC: 20 µl reagent / 100 µl of whole blood or 10⁶ cells in a suspension.

PE: 20 µl reagent / 100 µl of whole blood or 10⁶ cells in a suspension.

PerCP: 10 µl reagent / 100 µl of whole blood or 10⁶ cells in a suspension.

APC: 10 µl reagent / 100 µl of whole blood or 10⁶ cells in a suspension.

***Optimal working concentrations should be determined by the investigator.**

Background:

The CD8 T cell coreceptor (monomer approx. 32-34 kDa) is expressed as alpha/beta heterodimer on majority of MHC I-restricted conventional T cells and thymocytes and as alpha/alpha homodimer on subsets of memory T cells, intraepithelial lymphocytes, NK cells and dendritic cells. Regulation of CD8 beta level on T cell surface seems to be an important mechanism to control their effector function. Assembly of CD8 alpha-beta but not alpha-alpha dimers is connected with formation or localization to the lipid rafts. Recruiting triggered TCR complexes to these membrane microdomains as well as affinity of TCR to MHC I is modulated by CD8, thereby affecting the functional diversity of the TCR signaling.

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