

## anti-human CD8 FITC-conjugated

FITC-conjugated monoclonal antibody MEM-31 to human CD8

Cat-No: **21270083**

500 µl

**Clone:** MEM-31

**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 $\alpha$  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 T575**

**Isotype subclass:** Mouse IgG2a

**Form:** The purified antibody is conjugated with Fluoresceinisothiocyanate (FITC) under optimum conditions. The reagent is adjusted for direct use. No reconstitution is necessary.

**Physical state:** Liquid

**Buffer/Additives/Preservative:** PBS containing 1% BSA and 0.09% sodium azide (pH 7.2)

**Expiration date:** The reagent is stable until the expiry date stated on the vial label.

**Storage conditions:** Store at 4 °C. Avoid prolonged exposure to light.

**Application:** Flow Cytometry

**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.

### References:

- \* Devine L, Thakral D, Nag S, Dobbins J, Hodsdon ME, Kavathas PB: Mapping the binding site on CD8 beta for MHC class I reveals mutants with enhanced binding. J Immunol. 2006 Sep 15;177(6):3930-8.
- \* Pang DJ, Hayday AC, Bijlmakers MJ.: CD8 Raft localization is induced by its assembly into CD8alpha beta heterodimers, Not CD8alpha alpha homodimers. J Biol Chem. 2007 May 4;282(18):13884-94.
- \* van den Berg HA, Wooldridge L, Laugel B, Sewell AK: Coreceptor CD8-driven modulation of T cell antigen receptor specificity. J Theor Biol. 2007 Nov 21;249(2):395-408.

**Warning:** Sodium azide is harmful if swallowed (R22). Keep out of reach of children (S2). Keep away from food, drink and animal feeding stuff (S13). Wear suitable protective clothing (S36). If swallowed, seek medical advice immediately and show this container or label (S46). Contact with acids liberates very toxic gas (R32). Azide compounds should be flushed with large volumes of water during disposal to avoid deposits in lead or copper plumbing where explosive conditions can develop.

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