

anti-human CD8

Monoclonal Antibody HIT8a to CD8 (Human)

Cat-No: **21810081**

100 µg in 100 µl

Clone: HIT8a

Specificity: The CD8 (HIT8a) antibody recognizes a 68-kDa type-I transmembrane glycoprotein that consists of two disulfide-linked chains that form either as alpha/alpha homodimers or alpha/beta heterodimers. The most frequent CD8 antigen is CD8 alpha/beta heterodimer, which is expressed on 13-48 % (about one-third of peripheral T cells) peripheral blood lymphocytes-suppressor / cytotoxic T lymphocytes (Ts/Tc) and 70-80% of thymocytes. In addition, a proportion of $\gamma\delta$ T cells and NK cells express CD8 α homodimers. CD8 α can form homodimers, CD8 β cannot. CD8 β requires the presence of CD8 α to be expressed on the cell surface. CD8 antigen is co-receptor for HLA class-I molecules.

Isotype subclass: Mouse IgG1, k

Form: The antibody was purified by protein G affinity chromatography.

Physical state: Liquid

Buffer/Additives/Preservative: PBS containing 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 -20 °C. Avoid freeze/thaw cycles.

Application: Flow Cytometry
Immunohistochemistry with acetone-fixed frozen sections and formalin-fixed paraffin sections.

References:

Schlossman S. et al., eds. 1995. Leucocyte Typing V: White Cell Differentiation Antigens. P246, Oxford University Press, New York
Shen DC., et al., 1990. Shanghai J. of Immunol. 10(3):147
Yang CY., et al. 1993. J. of Monoclonal Antibody. 9(4):42.

Background: The CD8 T cell coreceptor (monomer approx. 32-34 kDa) is expressed as ab heterodimer on majority of MHC I-restricted conventional T cells and thymocytes and as aa homodimer on subsets of memory T cells, intraepithelial lymphocytes, NK cells and dendritic cells. Regulation of CD8b level on T cell surface seems to be an important mechanism to control their effector function. Assembly of CD8 a-b but not a-a 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.

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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