

CD8 (CT6): sc-59122

BACKGROUND

The T cell receptor (TCR) is a heterodimer composed of either α and β or γ and δ chains. CD3 chains and the CD4 or CD8 co-receptors are also required for efficient signal transduction through the TCR. The TCR is expressed on T helper and T cytotoxic cells that can be distinguished by their expression of CD4 and CD8; T helper cells express CD4 proteins and T cytotoxic cells display CD8. CD8 (also designated Leu 2 or T8), a cell surface glycoprotein, is a two chain complex ($\alpha\alpha$ or $\alpha\beta$) receptor that binds class I MHC molecules presented by the antigen-presenting cell (APC). A primary function of CD8 is to facilitate antigen recognition by the TCR and to strengthen the avidity of the TCR-antigen interactions. An additional role for CD8-expressing T cells may be to maintain low levels of HIV expression.

REFERENCES

1. Nakayama, K., Tokito, S., Okumura, K. and Nakauchi, H. 1989. Structure and expression of the gene encoding CD8 α chain (Leu 2/T8). *Immunogenetics* 30: 393-397.
2. Allison, J.P. and Havran, W.L. 1991. The immunobiology of T cells with invariant γ δ antigen regions. *Annu. Rev. Immunol.* 9: 679-705.
3. Zuniga-Pflucker, J.C., Jones, L.A., Chin, L.T. and Kruisbeek, A.M. 1991. CD4 and CD8 act as co-receptors during thymic selection of the T cell repertoire. *Sem. Immunol.* 3: 167-175.
4. Fleury, S.G., Croteau, G. and Sekaly, R.P. 1991. CD4 and CD8 recognition of class II and class I molecules of the major histocompatibility complex. *Sem. Immunol.* 3: 177-185.
5. Janeway, C.A., Jr. 1992. The T cell receptor as a multicomponent signalling machine: CD4/CD8 coreceptors and CD45 in T cell activation. *Annu. Rev. Immunol.* 10: 645-674.
6. Julius, M., Maroun, C.R. and Haughn, L. 1993. Distinct roles for CD4 and CD8 as co-receptors in antigen receptor signalling. *Immunol. Today* 14: 177-183.
7. Buseyne, F. and Riviere, Y. 1993. HIV-specific CD8⁺ T cell immune responses and viral replication. *AIDS Suppl.* 2: S81-S85.
8. Ehrlich, E.W., Devaux, B., Rock, E.P., Jorgenson, J.L., Davis, M.N. and Chien, Y.H. 1993. T cell receptor interaction with peptide/major histocompatibility complex (MHC) and superantigen MHC ligands is dominated by antigen. *J. Exp. Med.* 178: 713-722.
9. Luescher, I.F., Vivier, E., Layer, A., Mahiou, J., Godeau, F., Malissen, B. and Romero, P. 1995. CD8 modulation of T cell antigen receptor-ligand interactions on living cytotoxic T lymphocytes. *Nature* 373: 353-356.

SOURCE

CD8 (CT6) is a mouse monoclonal antibody raised against peritoneal T cells of Guinea pig origin.

PRODUCT

Each vial contains 500 μ l culture supernatant containing IgG₁ with < 0.1% sodium azide.

APPLICATIONS

CD8 (CT6) is recommended for detection of CD8 of Guinea pig origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 μ g per 1×10^6 cells).

Molecular Weight of CD8 α : 39 kDa.

Molecular Weight of CD8 β : 32 kDa.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.



See **CD8 (32-M4): sc-1177** for CD8 antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647.