SANTA CRUZ BIOTECHNOLOGY, INC.

CD8 (5F10): sc-70794

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 (αα or αβ) 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

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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. Semin. Immunol. 3: 167-175.
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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 7: S81-S85.
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STORAGE

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

PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: CD8A/CD8B (human) mapping to 2p11.2.

SOURCE

CD8 (5F10) is a mouse monoclonal antibody raised against CD8 of human origin.

PRODUCT

Each vial contains 100 µg IgG_1 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD8 (5F10) is available conjugated either phycoerythrin (sc-70794 PE, 100 tests in 2 ml) or fluorescein (sc-70794 FITC, 100 tests in 2 ml), for WB (RGB), IF, IHC(P) and FCM.

APPLICATIONS

CD8 (5F10) is recommended for detection of CD8 of human origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1×10^6 cells).

Molecular Weight of CD8 β: 32 kDa.

Molecular Weight of CD8 α: 39 kDa.

SELECT PRODUCT CITATIONS

1. Sugino, K., Akira, H., Toshimasa, U., Kazuhito H., Hiroshi, A. and Sakae H. 2013. Bronchiolitis obliterans associated with Stevens-Johnson syndrome: histopathological bronchial reconstruction of the whole lung and immunohistochemical study. Diagn. Pathol. 8: 134.
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4. Lin, Y., Pan, X., Zhao, L., Yang, C., Zhang, Z., Wang, B., Gao, Z., Jiang, K., Ye, Y., Wang, S. and Shen, Z. 2021. Immune cell infiltration signatures identified molecular subtypes and underlying mechanisms in gastric cancer. NPJ Genom. Med. 6: 83.

RESEARCH USE

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