

CD8- α (KT15): sc-53473

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

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9. Hogg, N., Stewart, M.P., Scarth, S.L., Newton, R., Shaw, J.M., Law, S.K. and Klein, N. 1999. A novel leukocyte adhesion deficiency caused by expressed but nonfunctional β 2 Integrins Mac-1 and LFA-1. *J. Clin. Invest.* 103: 97-106.

CHROMOSOMAL LOCATION

Genetic locus: Cd8a (mouse) mapping to 6 C1.

SOURCE

CD8- α (KT15) is a rat monoclonal antibody raised against T cell clone C6 of mouse origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD8- α (KT15) is available conjugated to either phycoerythrin (sc-53473 PE) or fluorescein (sc-53473 FITC), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM.

APPLICATIONS

CD8- α (KT15) is recommended for detection of CD8- α chain of mouse origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 μ g per 1 x 10⁶ cells).

Suitable for use as control antibody for CD8- α siRNA (m): sc-43677, CD8- α shRNA Plasmid (m): sc-43677-SH and CD8- α shRNA (m) Lentiviral Particles: sc-43677-V.

Molecular Weight of CD8- α : 39 kDa.

SELECT PRODUCT CITATIONS

1. Zhao, X., Yang, F., Mariz, F., Osen, W., Bolchi, A., Ottonello, S. and Müller, M. 2020. Combined prophylactic and therapeutic immune responses against human papillomaviruses induced by a thioredoxin-based L2-E7 nanoparticle vaccine. *PLoS Pathog.* 16: e1008827.
2. Ku, M.W., Authié, P., Nevo, F., Souque, P., Bourguin, M., Romano, M., Charneau, P. and Majlessi, L. 2021. Lentiviral vector induces high-quality memory T cells via dendritic cells transduction. *Commun. Biol.* 4: 713.

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.