**CD8-β (F-5): sc-25277**

**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 (α-β) 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**


**CHROMOSOMAL LOCATION**

Genetic locus: CD8B1 (human) mapping to 2p11.2.

**SOURCE**

CD8-β (F-5) is a mouse monoclonal antibody raised against a recombinant protein corresponding to amino acids 22-170 representing the extracellular domain of CD8-β chain.

**PRODUCT**

Each vial contains 200 µg IgG2a kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD8-β (F-5) is available conjugated to agarose (sc-25277 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-25277 HRP), 200 µg/ml, for WB, IHC(PE) and ELISA; to either phycoerythrin (sc-25277 PE), fluorescein (sc-25277 FITC), Alexa Fluor® 488 (sc-25277 AF488), Alexa Fluor® 546 (sc-25277 AF546), Alexa Fluor® 594 (sc-25277 AF594) or Alexa Fluor® 647 (sc-25277 AF647), 200 µg/ml, for WB (RGB), IF, IHC(PE) and FCM; and to either Alexa Fluor® 680 (sc-25277 AF680) or Alexa Fluor® 790 (sc-25277 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA.

**STORAGE**

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

**APPLICATIONS**

CD8-β (F-5) is recommended for detection of CD8-β chain of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CD8-β siRNA (h): sc-35029, CD8-β shRNA Plasmid (h): sc-35029-SH and CD8-β shRNA (h) Lentiviral Particles: sc-35029-V.

Molecular Weight of CD8-β: 32 kDa.

Positive Controls: SUP-T1 whole cell lysate: sc-364796, HuT 78 whole cell lysate: sc-2208 or CCRF-CEM cell lysate: sc-2225.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG BP-HRP: sc-516102 or m-IgG BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516102-CM (dilution range: 1:1000-1:10000) and Western Blotting Luminal Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG BP-FITC: sc-516140 or m-IgG BP-PE: sc-516141 (dilution range: 1:50-1:200) and UltraCruz® Hard-set Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

**DATA**

CD8-β (F-5): sc-25277. Western blot analysis of CD8-β expression in SUP-T1 whole cell lysate.

CD8-β (F-5): sc-25277. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic, membrane and nuclear staining of cells in glomeruli and tubuli. Kindly provided by The Swedish Human Protein Atlas (HPA) program A and human spleen tissue showing membrane and cytoplasmic staining of subset of cells in red pulp B.

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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