

# CD8- $\alpha$ (H-160): sc-7188

## BACKGROUND

The T cell receptor (TCR) is a heterodimer composed of either  $\alpha$  and  $\beta$  or  $\gamma$  and  $\delta$  chains. CD3 chains and the CD4 or CD8 (CD8- $\alpha$  and CD8- $\beta$ ) 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 proteins; T helper cells express CD4 proteins and T cytotoxic cells display CD8 proteins. CD8s are cell surface glycoproteins that exist as two chain complex ( $\alpha\alpha$  or  $\alpha\beta$ ) receptors that bind class I MHC molecules presented by the antigen-presenting cell (APC). A primary function of CD8 proteins 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.

## CHROMOSOMAL LOCATION

Genetic locus: CD8A (human) mapping to 2p11.2; Cd8a (mouse) mapping to 6 C1.

## SOURCE

CD8- $\alpha$  (H-160) is a rabbit polyclonal antibody raised against amino acids 22-182 of CD8- $\alpha$  of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

CD8- $\alpha$  (H-160) is recommended for detection of CD8- $\alpha$  chain of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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- $\alpha$  siRNA (h): sc-29247, CD8- $\alpha$  siRNA (m): sc-43677, CD8- $\alpha$  shRNA Plasmid (h): sc-29247-SH, CD8- $\alpha$  shRNA Plasmid (m): sc-43677-SH, CD8- $\alpha$  shRNA (h) Lentiviral Particles: sc-29247-V and CD8- $\alpha$  shRNA (m) Lentiviral Particles: sc-43677-V.

Molecular Weight of CD8- $\alpha$ : 39 kDa.

Positive Controls: CD8- $\alpha$  (h2): 293T Lysate: sc-174035, CCRF-CEM cell lysate: sc-2225 or MOLT-4 cell lysate: sc-2233.

## STORAGE

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

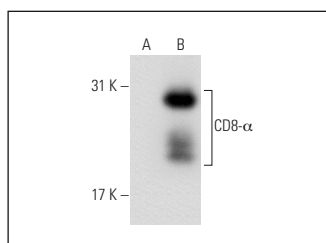
## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

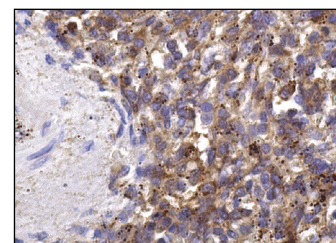
## RESEARCH USE

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

## DATA



CD8- $\alpha$  (H-160): sc-7188. Western blot analysis of CD8- $\alpha$  expression in non-transfected: sc-117752 (A) and human CD8- $\alpha$  transfected: sc-174035 (B) 293T whole cell lysates.



CD8- $\alpha$  (H-160): sc-7188. Immunoperoxidase staining of formalin fixed, paraffin-embedded human spleen tissue showing cytoplasmic staining of cells in white pulp.

## SELECT PRODUCT CITATIONS

- Bichet, D., et al. 2000. The I-II loop of the Ca<sup>2+</sup> channel  $\alpha$ 1 subunit contains an endoplasmic reticulum retention signal antagonized by the  $\beta$  subunit. *Neuron* 25: 177-190.
- Domachowske, J.B., et al. 2000. The chemokine macrophage-inflammatory protein-1  $\alpha$  and its receptor CCR1 control pulmonary inflammation and antiviral host defense in paramyxovirus infection. *J. Immunol.* 165: 2677-2682.
- Hu, D.E., et al. 2004. Tumor cell-derived nitric oxide is involved in the immune-rejection of an immunogenic murine lymphoma. *Cancer Res.* 64: 152-161.
- Heusser, K., et al. 2006. Scavenging of 14-3-3 proteins reveals their involvement in the cell-surface transport of ATP-sensitive K<sup>+</sup> channels. *J. Cell Sci.* 119: 4353-4363.
- Lillehoj, E.P., et al. 2007. MUC1 inhibits cell proliferation by a  $\beta$ -catenin-dependent mechanism. *Biochim. Biophys. Acta* 1773: 1028-1038.
- Gibbins, D.J., et al. 2007. CD8- $\alpha$  is expressed by human monocytes and enhances Fc  $\gamma$  R-dependent responses. *BMC Immunol.* 8: 12.
- Gu, H., et al. 2008. Gambogic acid induced tumor cell apoptosis by T lymphocyte activation in H22 transplanted mice. *Int. Immunopharmacol.* 8: 1493-1502.
- Tonelli, R.R., et al. 2010. *In vivo* infection by *Trypanosoma cruzi*: the conserved FLY domain of the gp85/*trans*-sialidase family potentiates host infection. *Parasitology* 138: 481-492.



Try **CD8- $\alpha$  (D-9): sc-7970** or **CD8- $\alpha$  (OX8): sc-53063**, our highly recommended monoclonal alternatives to CD8- $\alpha$  (H-160). Also, for AC, HRP, FITC, PE, Alexa Fluor<sup>®</sup> 488 and Alexa Fluor<sup>®</sup> 647 conjugates, see **CD8- $\alpha$  (D-9): sc-7970**.