## **Product Data Sheet**

## **Biotin anti-human CD8a**

Catalog # / Size: 2104520 / 100 µg

> Clone: HIT8a

Isotype: Mouse IgG1, κ

Reactivity: Human

**Preparation:** The antibody was purified by affinity

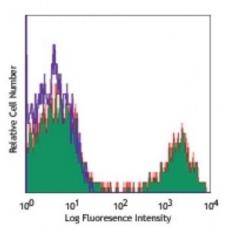
> chromatography, and conjugated with biotin under optimal conditions. The solution is free of unconjugated biotin.

Phosphate-buffered solution, pH 7.2, Formulation:

containing 0.09% sodium azide.

Workshop Number: V CD08.10

Concentration: 0.5



Human peripheral blood lymphocytes stained with

biotinylated HIT8a, followed by Sav-

## **Applications:**

**Applications:** Flow Cytometry

Recommended

Usage:

Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is ≤0.125 microg per million cells in 100 microL volume. It is recommended that the reagent be titrated for optimal performance for each

application.

**Application** Notes: Clone HIT8a recognizes the  $\alpha$  chain of CD85. It does not block the binding of RPA-

T8 antibody to CD8a.

Additional reported applications of this antibody (for the relevant formats) include: immunohistochemical staining of acetone-fixed frozen tissue sections<sup>5,6</sup>. This clone was tested in-house and does not work on formalin fixed paraffin-embedded

(FFPE) tissue.

**Application References:**  1. Schlossman S, et al. Eds. 1995. Leucocyte Typing V. Oxford University Press.

2. Knapp W. 1989. Leucocyte Typing IV. Oxford University Press New York.

3. Barclay N, et al. 1997. The Leucocyte Antigen Facts Book. Academic Press Inc.

San Diego.

4. Awasthi, S., et al. 2011. J. Virol 85:10472. PubMed

5. Coppieters KT, et al. 2012. J. Exp. Med. 209:51. (IHC, epitope)

6. Suzuki F, et al. 2012. Arthritis Res. Ther. 14:R48. (IHC)

**Description:** CD8a is a 32-34 kD type I glycoprotein. It forms a homodimer (CD8a/a) or

> heterodimer (CD8a/b) with CD8b. CD8, also known as T8 and Leu2, is a member of the immunoglobulin superfamily found on the majority of thymocytes, a subset of peripheral blood T cells, and NK cells (which express almost exclusively CD8a

> homodimers). CD8 acts as a co-receptor with MHC class I-restricted T cell receptors in antigen recognition and T cell activation and has been shown to play a role in thymic differentiation. Two domains in CD8a are important for function:

the extracellular IgSF domain binds the  $\alpha_3$  domain of MHC class I and the

cytoplasmic CXCP motif binds the tyrosine kinase p56 Lck.

Antigen References:

1. Barclay N,  $\it et al. 1993$ . The Leucocyte Antigen FactsBook. Academic Press Inc. San Diego.