

Datasheet for ABIN967472

**anti-CD8 alpha antibody (Biotin)****2** Images**14** Publications[Go to Product page](#)

## Overview

|              |                                                 |
|--------------|-------------------------------------------------|
| Quantity:    | 0.5 mg                                          |
| Target:      | CD8 alpha (CD8A)                                |
| Reactivity:  | Rat                                             |
| Host:        | Mouse                                           |
| Clonality:   | Monoclonal                                      |
| Conjugate:   | This CD8 alpha antibody is conjugated to Biotin |
| Application: | Flow Cytometry (FACS), Western Blotting (WB)    |

## Product Details

|                  |                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Brand:           | BD Pharmingen™                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Immunogen:       | High-molecular-weight rat thymocyte glycoproteins                                                                                                                                                                                                                                                                                                                                                                                      |
| Clone:           | OX-8                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Isotype:         | IgG1 kappa                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Characteristics: | <ol style="list-style-type: none"><li>1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.</li><li>2. Please refer to us for technical protocols.</li><li>3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.</li></ol> |
| Purification:    | The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.                                                                                                                                                                                                                                                                                                                            |

## Target Details

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Target:           | CD8 alpha (CD8A)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Alternative Name: | CD8a ( <a href="#">CD8A Products</a> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Background:       | <p>The OX-8 antibody reacts with the hinge-like membrane-proximal domain of the 32 kDa alpha chain of the CD8 differentiation antigen. A truncated CD8 alpha' isoform has not been detected in the rat. The CD8 alpha and beta chains (CD8a and CD8b, respectively) form a heterodimer on the surface of most thymocytes and a subpopulation of mature T lymphocytes (i.e., MHC class I-restricted T cells, including most T suppressor/cytotoxic cells). Intestinal intraepithelial lymphocytes, many CD8+ T cells of athymic rats, many activated CD4+ T cells, and most NK cells express CD8a without CD8b. It has been suggested that the expression of the CD8a/CD8b heterodimer is restricted to thymus-derived T lymphocytes. OX-8 antibody does not react with resting CD4+ T helper cells. CD8 is an antigen coreceptor on the T-cell surface which interacts with MHC class I molecules on antigen-presenting cells. It participates in T-cell activation through its association with the T-cell receptor complex and protein tyrosine kinase Lck. Macrophages have also been reported to express CD8 alpha and beta chains, which are involved in signal transduction. Soluble OX-8 mAb partially blocks in vitro MLR and CTL activity. This antibody is routinely tested by flow cytometric analysis.</p> |
| Pathways:         | <a href="#">TCR Signaling</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

## Application Details

|                    |                                                                                                                                                                                            |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Restrictions:      | For Research Use only                                                                                                                                                                      |
| Handling           |                                                                                                                                                                                            |
| Format:            | Liquid                                                                                                                                                                                     |
| Concentration:     | 0.5 mg/mL                                                                                                                                                                                  |
| Buffer:            | Aqueous buffered solution containing $\leq 0.09$ % sodium azide.                                                                                                                           |
| Preservative:      | Sodium azide                                                                                                                                                                               |
| Precaution of Use: | This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.                                                                     |
| Storage:           | 4 °C                                                                                                                                                                                       |
| Storage Comment:   | The antibody was conjugated with biotin under optimum conditions, and unreacted biotin was removed. Store undiluted at 4° C and protected from prolonged exposure to light. Do not freeze. |

## Publications

Product cited in:

Mitnacht, Bischof, Torres-Nagel, Hünig: "Opposite CD4/CD8 lineage decisions of CD4+8+ mouse and rat thymocytes to equivalent triggering signals: correlation with thymic expression of a truncated CD8 alpha chain in mice but not rats." in: **Journal of immunology (Baltimore, Md. : 1950)**, Vol. 160, Issue 2, pp. 700-7, (1998) ([PubMed](#)).

Scriba, Grau, Steiniger: "Phenotype of rat monocytes during acute kidney allograft rejection: increased expression of NKR-P1 and reduction of CD43." in: **Scandinavian journal of immunology**, Vol. 47, Issue 4, pp. 332-42, (1998) ([PubMed](#)).

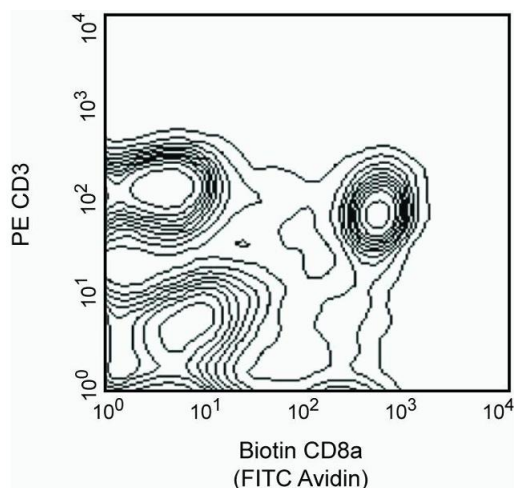
Hirji, Lin, Befus: "A novel CD8 molecule expressed by alveolar and peritoneal macrophages stimulates nitric oxide production." in: **Journal of immunology (Baltimore, Md. : 1950)**, Vol. 158, Issue 4, pp. 1833-40, (1997) ([PubMed](#)).

Wallgren, Karlsson-Parra, Korsgren: "The main infiltrating cell in xenograft rejection is a CD4+ macrophage and not a T lymphocyte." in: **Transplantation**, Vol. 60, Issue 6, pp. 594-601, (1995) ([PubMed](#)).

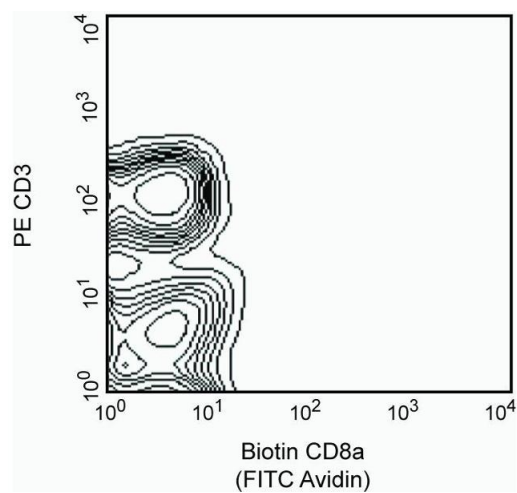
Kühnlein, Park, Herrmann, Elbe, Hünig et al.: "Identification and characterization of rat gamma/delta T lymphocytes in peripheral lymphoid organs, small intestine, and skin with a monoclonal antibody to a constant determinant of the gamma/delta T ..." in: **Journal of immunology (Baltimore, Md. : 1950)**, Vol. 153, Issue 3, pp. 979-86, (1994) ([PubMed](#)).

There are more publications referencing this product on: [Product page](#)

## Images



**Image 1.** Stained with Avidin-FITC



### Flow Cytometry

**Image 2.** The expression of CD8a on rat splenocytes. Single-cell suspensions of Lewis splenocytes were simultaneously stained with PE-conjugated anti-rat CD3 mAb G4.18 and biotin mAb OX-8 (second panel), followed by Avidin-FITC. Note that the CD8a<sup>+</sup>CD3<sup>-</sup> population represents NK cells. Flow cytometry was performed on a BD FACScan™ flow cytometry system.