

Datasheet for ABIN967471
anti-CD8 alpha antibody



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Overview

Quantity:	0.5 mg
Target:	CD8 alpha (CD8A)
Reactivity:	Rat
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This CD8 alpha antibody is un-conjugated
Application:	Flow Cytometry (FACS), Western Blotting (WB), Immunoprecipitation (IP), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunohistochemistry (Frozen Sections) (IHC (fro)), Blocking Reagent (BR), Immunohistochemistry (Zinc-fixed Sections) (IHC (zinc)), Immunoaffinity Chromatography (IAC)

Product Details

Brand:	BD Pharmingen™
Immunogen:	High-molecular-weight rat thymocyte glycoproteins
Clone:	OX-8
Isotype:	IgG1 kappa
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us for technical protocols. 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.

Product Details

4. Sodium azide is a reversible inhibitor of oxidative metabolism, therefore, antibody preparations containing this preservative agent must not be used in cell cultures nor injected into animals. Sodium azide may be removed by washing stained cells or plate-bound antibody or dialyzing soluble antibody in sodium azide-free buffer. Since endotoxin may also affect the results of functional studies, we recommend the NA/LE™ (No Azide/Low Endotoxin) antibody format, if available, for in vitro and in vivo use.

Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
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Target Details

Target:	CD8 alpha (CD8A)
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Alternative Name:	CD8a (CD8A Products)
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Background:	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.
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Pathways:	TCR Signaling
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Application Details

Application Notes:	For IHC, we recommend the use of purified OX-8 mAb in our special formulation for immunohistochemistry.
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Restrictions:	For Research Use only
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Handling

Format:	Liquid
Concentration:	0.5 mg/mL
Buffer:	Aqueous buffered solution containing ≤ 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:	Store undiluted at 4° C.

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](#)).

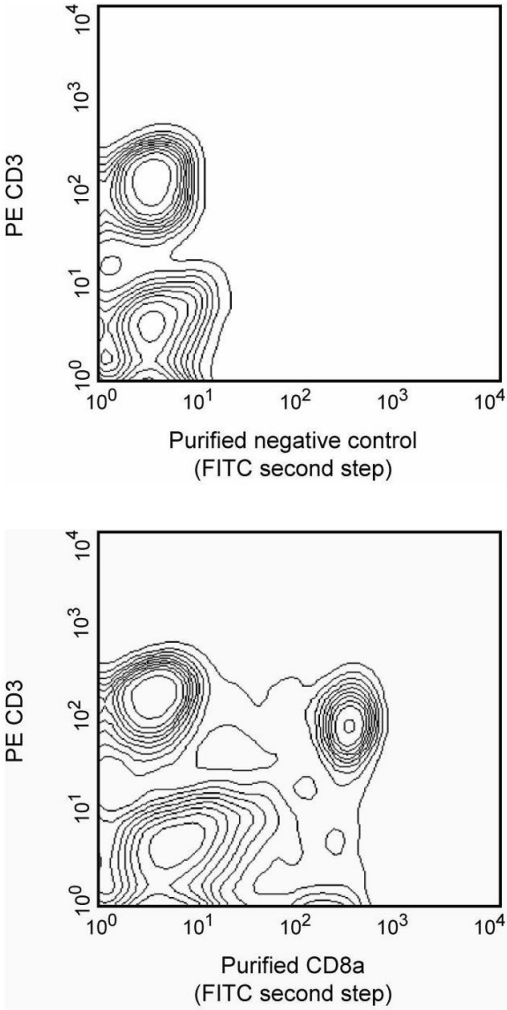
Scriba, Grau, Steiniger: "Phenotype of rat monocytes during acute kidney allograft rejection: increased expression of NKR-P1 and reduction of CD43." in: **Scandinavian journal of immunology**, Vol. 47, Issue 4, pp. 332-42, (1998) ([PubMed](#)).

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](#)).

Janeway: "The T cell receptor as a multicomponent signalling machine: CD4/CD8 coreceptors and CD45 in T cell activation." in: **Annual review of immunology**, Vol. 10, pp. 645-74, (1992) ([PubMed](#)).

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



Flow Cytometry

Image 1. 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 purified mAb OX-8 (second panel), followed by FITC-conjugated anti-mouse IgG1 mAb A85-1. Note that the CD8a+CD3⁻ population represents NK cells. Flow cytometry was performed on a BD FACScan™ flow cytometry system.

Image 2. Stained with purified mAb OX-8