Cotton Rat CD8α alpha Alexa Fluor® 488-conjugated Antibody

Monoclonal Mouse IgG_{2A} Clone # JG12

Catalog Number: FAB7080G

100 Tests

DESCRIPTION

Species Reactivity	Cotton Rat
Specificity	Detects cotton rat CD8α in direct ELISAs.
Source	Monoclonal Mouse IgG_{2A} Clone # JG12
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	NIH-3T3 mouse embryonic fibroblast cell line transfected with cotton rat CD8α and SP2/O mouse melanoma cell line transfected with cotton rat CD8α. Accession # AAL55392
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

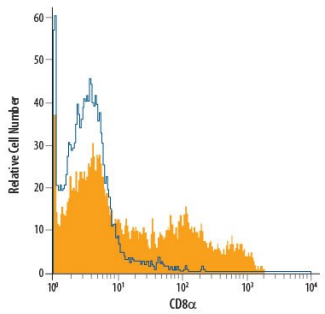
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Flow Cytometry	5 µL/10^6 cells	See Below

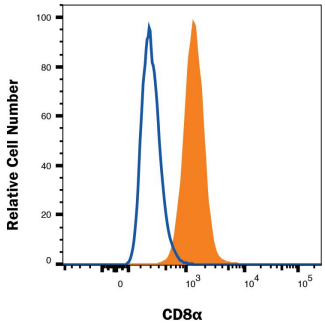
DATA

Flow Cytometry



Detection of CD8α in Cotton Rat Splenocytes by Flow Cytometry. Cotton rat splenocytes were stained with Mouse Anti-Cotton Rat CD8a Alexa Fluor® 488-conjugated Monoclonal Antibody (Catalog # FAB7080G, filled histogram) or isotype control antibody (Catalog # Catalog # IC003G, open histogram). View our protocol for Staining Membrane-associated Proteins.

Flow Cytometry



Detection of CD8 alpha in NS0 Mouse Cell Line Transfected with Cotton Rat CD8 alpha by Flow Cytometry. NS0 mouse myeloma cell line transfected with cotton rat CD8a were stained with Mouse Anti-Cotton Rat CD8a Alexa Fluor® 488-conjugated Monoclonal Antibody (Catalog # FAB7080G, filled histogram) or Mouse IgG2A isotype control antibody (Catalog # IC003G, open histogram). Staining was performed using our Staining Membrane-associated Proteins protocol.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Protect from light. Do not freeze.** • 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

CD8 alpha (CD8α; also OX8, Leu-2 and Lyt-2) is a 23 kDa (predicted) member of the Ig superfamily of molecules. It is found on immature thymocytes, cytotoxic and suppressor T cells, select mast cells, and splenic and bone marrow dendritic cells (in rodent). On T cells, CD8α exists as either a disulfide linked homodimer, or heterodimer bound to CD8β. CD8αβ is best known as a coreceptor for the TCR, enhancing TCR signaling. CD8αα serves a different function and acts as a TCR corepressor that blocks T cell activation. Based on rat, mature Sigmodon hispidus/cotton rat CD8α is a 210 amino acid (aa) type I transmembrane protein that consists of a 161 aa extracellular region (aa 24-184) with one V-type Ig-like domain (aa 35-135), and a 30 aa cytoplasmic tail (aa 206-235). Although Sigmodon hispidus is called a rat, it is not. It is a rodent, and rat CD8α is the closest ortholog to cotton rat CD8α currently reported. Over the extracellular region, rat and cotton rat CD8α share only 54% aa identity. Rat CD8α runs at 34-39 kDa in SDS-Page, and possesses one utilized N-linked and O-linked glycosylation site (vs. no N-linked sites in cotton rat CD8α). Based on this organization, and assuming O-linked glycosylation, cotton rat CD8α would be expected to run at about 30-34 kDa in SDS-PAGE. Over aa 24-182, cotton rat CD8α shares 54% and 48% aa identity with rat and mouse CD8α, respectively.

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Monoclonal Mouse IgG_{2A} Clone # JG12

Catalog Number: FAB7080G

100 Tests

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