

DESCRIPTION

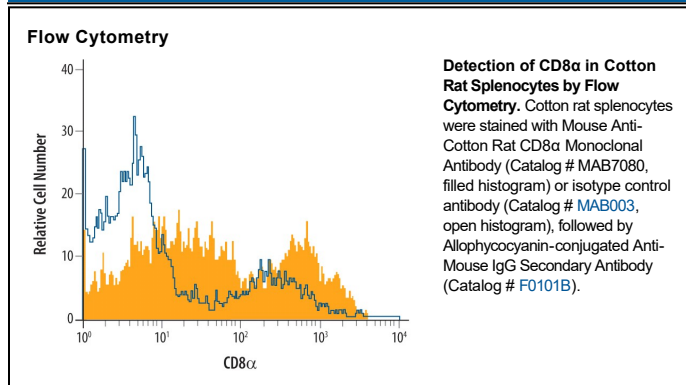
Species Reactivity	Cotton Rat
Specificity	Detects cotton rat CD8 α in direct ELISAs.
Source	Monoclonal Mouse IgG _{2A} Clone # JG12
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	NIH-3T3 mouse embryonic fibroblast cell line transfected with cotton rat CD8 α and SP2/O mouse melanoma cell line transfected with cotton rat CD8 α . Accession # AAL55392
Formulation	Lyophilized from a 0.2 μ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μ m filtered solution in PBS.

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	2.5 μ g/10 ⁶ cells	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

DATA



PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

CD8 alpha (CD8 α ; 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, CD8 α exists as either a disulfide linked homodimer, or heterodimer bound to CD8 β . CD8 $\alpha\beta$ is best known as a coreceptor for the TCR, enhancing TCR signaling. CD8 α serves a different function and acts as a TCR corepressor that blocks T cell activation. Based on rat, mature Sigmodon hispidus/cotton rat CD8 α 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 CD8 α is the closest ortholog to cotton rat CD8 α currently reported. Over the extracellular region, rat and cotton rat CD8 α share only 54% aa identity. Rat CD8 α 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 CD8 α). Based on this organization, and assuming O-linked glycosylation, cotton rat CD8 α would be expected to run at about 30-34 kDa in SDS-PAGE. Over aa 24-182, cotton rat CD8 α shares 54% and 48% aa identity with rat and mouse CD8 α , respectively.