

CD8a Monoclonal Antibody (53-6.7), NovaFluor™ Yellow 700, eBioscience™

Product Details	
Size	25 µg
Species Reactivity	Mouse
Host/Isotype	Rat / IgG2a, kappa
Class	Monoclonal
Type	Antibody
Clone	53-6.7
Conjugate	NovaFluor™ Yellow 700
Excitation/Emission Max	551/701 nm
Form	Liquid
Concentration	0.1 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	0.5 µg/test	-

Product Specific Information

Description: The 53-6.7 monoclonal antibody reacts with the mouse CD8a molecule. CD8a is an approximately 32-34 kDa cell surface receptor expressed either as a heterodimer with the CD8 beta chain (CD8 alpha beta) or as a homodimer (CD8 alpha alpha). A majority of thymocytes and a subpopulation of mature alpha beta TCR T cells express CD8 alpha beta while gamma delta TCR T cells, a subpopulation of intestinal intraepithelial lymphocytes (IELs) and dendritic cells express CD8 alpha alpha. CD8 binds to MHC class I and through its association with protein tyrosine kinase p56lck plays a role in T cell development and activation of mature T cells.

Each product contains 1 vial of NovaFluor conjugate and 1 vial of CellBlox Plus Blocking Buffer .

Applications Reported: This 53-6.7 antibody has been reported for use in flow cytometric analysis.

Applications Tested: This 53-6.7 antibody has been tested by flow cytometric analysis of mouse splenocytes. This may be used at less than or equal to 0.5 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10⁵ to 10⁸ cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

NovaFluor dyes are not compatible with DNA intercalating viability dyes. Do not use viability dyes such as propidium iodide, 7-actinomycin D (7-AAD) and DAPI. Invitrogen LIVE/DEAD Fixable Dead Cell stains are recommended for use with NovaFluor dyes.

This NovaFluor conjugate has been updated to ship with CellBlox Plus Blocking Buffer (Cat. No. (C001T06F01)). This buffer contains formulation improvements over CellBlox. CellBlox Plus Blocking Buffer is required for optimal staining with NovaFluor conjugates and should be used in all experiments where NovaFluor conjugates are used. Whenever possible, we recommend adding CellBlox Plus Blocking Buffer to antibody cocktails/master mixes prior to combining with cells. Add 5 µL per sample (regardless of the number of NovaFluors in your panel) to use the antibody cocktail as intended. For single-color controls, use

5 µL of CellBlox Blocking Buffer per 100 µL of cell sample containing 10³ to 10⁸ cells.

NovaFluor conjugates are based on Phiton™ technology utilizing novel nucleic acid dye structures that allow for engineered fluorescent signatures with consideration for spillover and spread impacts. Learn more

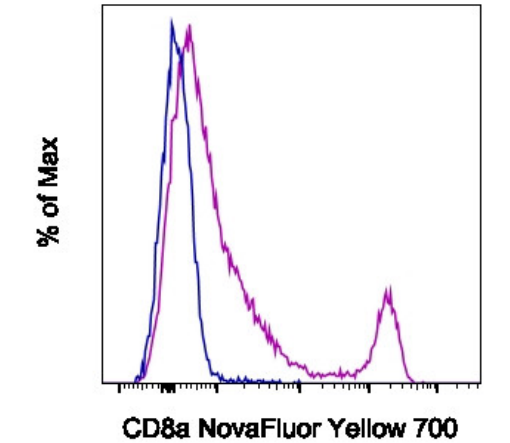
Excitation: 552 nm; Emission: 700 nm; Laser: 561 nm (Yellow) Laser

Our internal testing shows that NovaFluor Yellow 700 non-specifically stains B cells in SJL mice. Non-specific staining has not been observed in BALB/c or C57BL/6 mice. Other strains have not been tested. See the Antibody Testing Data for an example of this strain-dependent difference.

Product Images For CD8a Monoclonal Antibody (53-6.7), NovaFluor™ Yellow 700, eBioscience™

CD8a Antibody (M003T02Y06-A) in Flow

C57BL/6 mouse splenocytes were either left unstained (blue histogram) or stained with 0.5 µg of CD8a Monoclonal Antibody, NovaFluor Yellow 700 (purple histogram) and acquired in the YG7 channel on a 5-laser Cytex Aurora. Cells in the lymphocyte gate were used in the analysis.



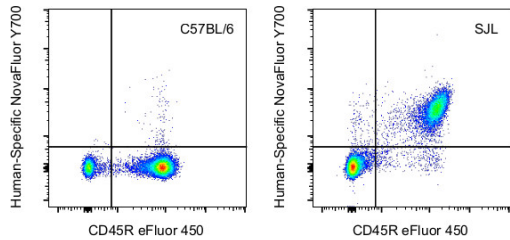
CD8a Antibody (M003T02Y06-A) in Flow

Spectral signature for NovaFluor Yellow 700 collected on a 5-laser Cytex Aurora Full Spectrum flow cytometer using Cytex assay settings. Human peripheral blood mononuclear cells were stained with anti-human CD4 (SK3) and signatures displayed following gating on the lymphocyte population.



CD8a Antibody (M003T02Y06-A) in Flow

NovaFluor Yellow 700 non-specific staining of B cells in the SJL strain of mice. Splenocytes from C57BL/6 (left) and SJL (right) strains of mice were stained with Anti-Mouse CD45R (B220) Monoclonal Antibody conjugated to eFluor 450 and a non-cross-reactive, human-specific monoclonal antibody conjugated to NovaFluor Yellow 700. These data show that NovaFluor Yellow 700-conjugated antibodies non-specifically stain B cells in SJL mice (right). Non-specific staining has not been observed in C57BL/6 (left) mice and BALB/c mice (data not shown).



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