TOLL FREE PHONE 1 800 667 0322 • PHONE +1 604 877 0713
INFO@STEMCELL.COM • TECHSUPPORT@STEMCELL.COM
FOR GLOBAL CONTACT DETAILS VISIT WWW.STEMCELL.COM

Anti-Mouse CD8a Antibody, Clone 2.43, APC

Rat monoclonal antibody against mouse CD8a, APC-conjugated

Catalog #100-1634 | 100 µg | 0.2 mg/mL

Product Description

This monoclonal antibody reacts with mouse cluster of differentiation 8 subunit alpha (CD8a), a 32 - 34 kDa type I transmembrane glycoprotein. CD8 is a disulfide-bonded dimer, found either as a heterodimer of CD8a (α) and CD8b (β) subunits (i.e. αβ) or a homodimer (i.e. αα). CD8 is expressed in the αβ form by a majority of thymocytes and a subset of mature peripheral blood T cells (T cytotoxic cells), and in the ββ form by γδ T cells, a subset of intestinal intraepithelial lymphocytes, and dendritic cells. CD8 acts as a co-receptor to the T cell receptor (TCR) during T cell activation by binding to the major histocompatibility (MHC) Class I molecules presented by an antigen-presenting cell. The CD8a chain binds to the alpha3 domain of MHC class I molecules. It functions to strengthen the association between the TCR and MHC I-antigen complex and to amplify signals from the TCR to the cytoplasm through the interaction of its intracellular domain with cytoplasmic tyrosine kinases, such as lymphocyte-specific protein tyrosine kinase (Lck). This antibody is used as a phenotypic marker for mouse CD8 on cytotoxic T cells, thymocytes, as well as on certain cell types that do not express the TCR, which includes some natural killer cells and lymphoid dendritic cells.

Target Antigen:	CD8a
Alternative Names:	CD8 alpha, Ly-2, Ly-35, Ly-B, Lyt-2
Gene ID:	12525
Species Reactivity:	Mouse
Host Species:	Rat
Clonality:	Monoclonal
Clone:	2.43
Isotype:	IgG2b, kappa
Immunogen:	Mouse CTL clone L3
Conjugate:	APC (Allophycocyanin)

Applications

Verified Applications:	FC
Reported Applications:	FC

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence-activated cell sorting; FC: Flow cytometry; FCXM: Flow cytometric crossmatch assay; FISH: Fluorescence in situ hybridization; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IHC-F: Immunohistochemistry (frozen-tissue); IHC-P: Immunohistochemistry (paraffin-embedded); IP: Immunoprecipitation; NMR: Nuclear magnetic resonance spectroscopy; RIA: Radioimmunoassay; WB: Western blotting

Properties

Product Formulation:	Phosphate-buffered saline, pH 7.2, containing 0.09% sodium azide and 0.1% gelatin
Purification:	The antibody was purified by affinity chromatography and conjugated with APC under optimal conditions. The solution is free of unconjugated APC.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. Protect product from prolonged exposure to light. Stable until expiry date (EXP) on label.
Directions for Use:	For flow cytometry, the suggested use of this antibody is ≤ 1 µg per 1 x 10^6 cells in 100 µL. It is recommended that the antibody be titrated for optimal performance for each application.

Related Products

For a complete list of antibodies, including other conjugates, sizes, and clones, as well as related products available from STEMCELL Technologies, visit www.stemcell.com/antibodies, or contact us at techsupport@stemcell.com.

References

Bankoti J et al. (2010) Effects of TCDD on the fate of naive dendritic cells. Toxicol Sci 115(2): 422–34.
Bouwer HGA et al. (2006) Directed antigen delivery as a vaccine strategy for an intracellular bacterial pathogen. Proc Natl Acad Sci U S A 103(13): 5102–7.
McDole JR et al. (2010) Rapid formation of extended processes and engagement of Theiler's virus-infected neurons by CNS-infiltrating CD8 T Cells. Am J Pathol 177(4): 1823–33.
Ou R et al. (2008) Regulation of immune response and inflammatory reactions against viral infection by VCAM-1. J Virol 82(6): 2952–65.
Saegusa J & Kubota H. (1997) Sialadenitis in IQI/Jic mice: A new animal model of Sjögren's syndrome. J Vet Med Sci 59(10): 897–903.
Sagiv-Barfi I et al. (2015) Ibrutinib enhances the antitumor immune response induced by intratumoral injection of a TLR9 ligand in mouse lymphoma. Blood 125(13): 2079–86.
Shih FF et al. (2006) Differential MHC class II presentation of a pathogenic autoantigen during health and disease. J Immunol 176(6): 3438–48.