Anti-Mouse Ly-49A Antibody, Clone YE1/32.8.5

Antibodies

Rat monoclonal IgG2a antibody against mouse Ly-49A, unconjugated

Catalog #60150 | 100 µg | 1 mg/mL

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Product Description

The YE1/32.8.5 antibody reacts with Ly-49A, a member of the C-type lectin family of proteins. Ly-49A is a type II transmembrane protein expressed as a 44 kDa disulfide-linked homodimer on the surface of subsets of natural killer (NK) cells, NK-T cells, and T cells by some mammalian species, but not humans. It functions to inhibit NK cell activation by binding to certain haplotypes of MHC class I molecules on target cells, specifically H-2Dd and H2Dk, which results in phosphorylation of the immunoreceptor tyrosine-based inhibitory motif (ITIM) in the cytoplasmic domain and the recruitment of tyrosine phosphatases, such as SHP-1 and SHP-2. While many anti-Ly-49A antibodies are strain-specific, the YE1/32.8.5 antibody reacts with NK cells from all strains of mice tested. This antibody inhibits the binding of Ly-49A to its ligands and reverses the inhibition of NK cytotoxicity mediated by specific MHC class I molecules on target cells. It very weakly cross-reacts with Ly-49D, but the levels of cross-reactivity are deemed too low to affect flow cytometric analysis of NK cells for functional studies of Ly-49A.

Target Antigen Name:	Ly-49A
Alternative Names:	Killer cell lectin-like receptor subfamily A member 1, Klra1, Lymphocyte antigen 49a, Natural killer cell receptor Ly49A, T lymphocyte antigen A1
Gene ID:	16627
Species Reactivity:	Mouse
Host Species:	Rat (Fisher 344)
Clonality:	Monoclonal
Clone:	YE1/32.8.5
Isotype:	IgG2a, kappa
Immunogen:	Mouse hybrid T cell line ECA17.9.8
Conjugate:	Unconjugated

Applications

Verified:	CellSep
Reported:	FC, IP, RIA

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence-activated cell sorting; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; RIA: Radioimmunoassay; WB: Western blotting

Properties

Formulation:	Phosphate-buffered saline
Purification:	The antibody was purified by affinity chromatography.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. Addition of 0.1% sodium azide (final) is recommended once the vial has been opened. For product expiry date, please contact techsupport@stemcell.com.
Directions for Use:	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, please visit our website at www.stemcell.com/antibodies or contact us at techsupport@stemcell.com.

References

1. Takei F et al. (1997) The Ly-49 family: genes, proteins and recognition of class I MHC. Immunol Rev 155: 67–77. (FC)
2. Chan PY & Takei F. (1986) Expression of a T cell receptor-like molecule on normal and malignant murine T cells detected by rat monoclonal antibodies to nonclonotypic determinants. J Immunol 136(4): 1346–53. (FC, IP, RIA)