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

Antibodies

Rat monoclonal IgG2b 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-49 family of proteins which consists of disulfide-linked homodimers of 44 kDa subunits which are type II transmembrane proteins with external C-type lectin domains. They are expressed on the surface of natural killer (NK) cells. Most members function to inhibit NK cell activation upon recognition and interaction with certain haplotypes of MHC class I molecules on potential target cells. This is accomplished via recruitment of tyrosine phosphatases including SHP-1 and SHP-2 upon phosphorylation of cytoplasmic immunoreceptor tyrosine-based inhibitory motifs (ITIMs). The Ly-49A receptor recognizes H-2Dd and H2Dk. While many anti-Ly-49A antibodies are strain-specific, the YE1/32.8.5 rat monoclonal 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 by specific MHC class I 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 on Ly-49A.

Target Antigen Name:	Ly-49A
Alternative Names:	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:	IgG2b, kappa
Immunogen:	Mouse hybrid T cell line ECA17.9.8
Conjugate:	Unconjugated

Applications

Verified:	CellSep
Reported:	Blocking, FC, IP

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)