

**ANTI-MOUSE Ly-49A**

**Rat Monoclonal Antibody Against Mouse Ly-49A  
Clone YE1/32.8.5**

**Catalog # 01502**

**0.1 mL (100 mg)**

**SPECIFICITY:**

The Ly-49 family of proteins consists of disulfide-linked homodimers of 44 kD 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 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 rat monoclonal antibody reacts with NK cells from all strains of mice thus far tested. This antibody inhibits the binding of Ly-49A to its ligands and reverses the inhibition of NK cytotoxicity by specific class I MHC on target cells. It very weakly cross-reacts with Ly-49D, but the levels of the cross-reactivity seems too low to affect flow cytometric analysis of NK cells for functional studies on Ly-49A.

**CLONE:** YE1/32.8.5

**ISOTYPE:** IgG<sub>2</sub>, $\kappa$  (rat)

**FORMAT:**

0.1 mg of purified antibody in 0.1mL phosphate buffered saline (PBS), sterilized by filtration.

**STABILITY AND STORAGE:**

Store at 4°C or at -20°C in useful aliquots. Avoid repeated freeze thaw cycles. Product is stable for 2 years. Addition of 0.1% sodium azide (final) is recommended once vial has been opened.

Contents sterile if unopened.

**APPLICATIONS AND DIRECTIONS FOR USE:**

Centrifuge tube briefly before use to ensure recovery of entire contents.

Flow cytometry, immunoprecipitation, blocking studies:

Appropriate conditions should be established for each application. This antibody is not suitable for immunoblotting.

**THIS REAGENT IS FOR RESEARCH ONLY.  
IT IS NOT TO BE ADMINISTERED TO HUMANS.**

**REFERENCES:**

1. Takei F. Two surface antigens expressed on proliferating mouse T lymphocytes defined by rat monoclonal antibodies. J Immunol. 130: 2794-2797, 1983.
2. Takei F, Brennan J, Mager DL. The Ly-49 family: genes, proteins and recognition of class I MHC. Immunol Rev. 155: 67-77, 1997.