

## ORDERING INFORMATION

**Catalog Number:** MAB2555

**Clone:** 312830

**Lot Number:** CAZF01

**Size:** 100 µg

**Formulation:** 0.2 µm filtered solution in PBS with 5% trehalose

**Storage:** -20° C

**Reconstitution:** sterile PBS

**Specificity:** mouse CD229

**Immunogen:** NS0-derived rmCD229

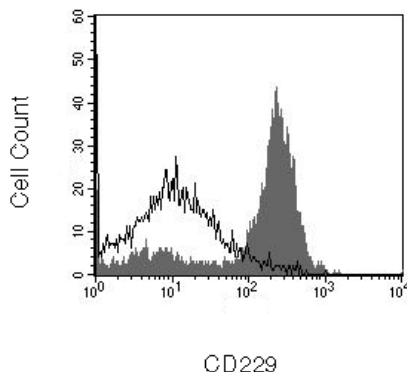
**Ig class:** rat IgG<sub>2A</sub>

**Recommended Applications:**

Western blot  
Flow cytometry

**Other Application:**

Direct ELISA



Splenocytes were stained with anti-CD229 (R&D Systems, Cat. # MAB2555, clone 312830, filled histogram) or isotype control (R&D Systems, Cat. # MAB005, open histogram) followed by PE-conjugated anti-rat antibody (R&D Systems, Cat. # F0105B).

## Background

CD229, also known as T lymphocyte surface antigen Ly-9, is a type I transmembrane protein belonging to the immunoglobulin superfamily. It is also a member of the CD150/SLAM receptor family and is expressed on T and B lymphocytes. Mouse CD229 contains 2 Ig-like C2-type domains and 2 Ig-like V-type domains in its extracellular region. Two mouse alleles that differ in 6 extracellular amino acid residues have been reported. Human and mouse CD229 share 60% amino acid sequence identity in their extracellular regions.

## Preparation

This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a rat immunized with purified, NS0-derived, recombinant mouse CD229 (rmCD229; aa 48 - 454; Accession # Q01965). The IgG fraction of the tissue culture supernatant was purified by Protein G affinity chromatography.

## Formulation

Lyophilized from a 0.2 µm filtered solution in phosphate-buffered saline (PBS) with 5% trehalose.

## Reconstitution

Reconstitute with sterile PBS. If 1 mL of PBS is used, the antibody concentration will be 500 µg/mL.

## Storage

Lyophilized samples are stable for twelve months from date of receipt when stored at -20° C to -70° C. Upon reconstitution, the antibody can be stored at 2° - 8° C for 1 month without detectable loss of activity. Reconstituted antibody can also be aliquotted and stored frozen at -20° C to -70° C in a manual defrost freezer for six months without detectable loss of activity. **Avoid repeated freeze-thaw cycles.**

## Specificity

This antibody detects rmCD229 in direct ELISAs and Western blots. In Western blots, this antibody shows no cross-reactivity with rhCD229.

## Applications

**Western blot** - This antibody can be used at 1 - 2 µg/mL with the appropriate secondary reagents to detect mouse CD229. Using a colorimetric detection system, the detection limit for rmCD229 is approximately 25 ng/lane under non-reducing conditions. Use of this antibody under reducing conditions is not recommended. Chemiluminescent detection will increase sensitivity by 5 to 50 fold.

**Flow cytometry** - This antibody was tested for flow cytometry using splenocytes. Dilute this antibody to 25 µg/mL and add 10 µL of the diluted solution to 1 - 2.5 x 10<sup>5</sup> cells in a total reaction volume not exceeding 200 µL. The binding of unlabeled antibodies may be visualized by adding a secondary developing reagent such as anti-rat IgG conjugated to a fluorochrome.

**Direct ELISA** - This antibody can be used at 0.5 - 1.0 µg/mL with the appropriate secondary reagents to detect mouse CD229. The detection limit for rmCD229 is approximately 2 ng/well.

**Optimal dilutions should be determined by each laboratory for each application.**