

MONOCLONAL ANTIBODY

# Rat IgG2a (isotype control)-PE

Code No.	Clone	Subclass	Quantity	Concentration
M081-5	2H3	Rat IgG2a $\kappa$	1 mL (50 tests)	10 $\mu$ g/mL

**SOURCE:** This antibody was purified from hybridoma (clone 2H3) supernatant using protein G agarose. This hybridoma was established by fusion of mouse myeloma cell P3U1 with rat lymph nodes immunized with KLH.

**FORMULATION:** 50 tests in 1 mL volume of PBS containing 1% BSA and 0.09% NaN<sub>3</sub>.

\*Azide may react with copper or lead in plumbing system to form explosive metal azides. Therefore, always flush plenty of water when disposing materials containing azide into drain.

**STORAGE:** This antibody solution is stable for one year from the date of purchase when stored at 4°C.

**REACTIVITY:** No specific binding detected on mouse splenocyte.

## APPLICATION:

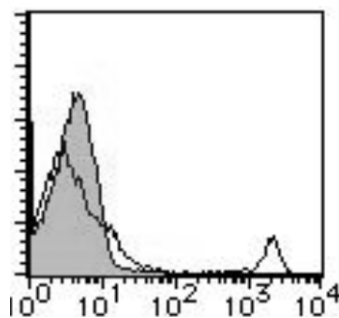
Flow cytometry: 20  $\mu$ L (ready for use)

This antibody can be used as negative isotypic control. The concentration of antibody will depend on condition.

Detailed procedure is provided in the following **PROTOCOLS**.

## INTENDED USE:

For Research Use Only. Not for use in diagnostic procedures.



**Flow cytometric analysis of PE labeled rat IgG2a on mouse splenocyte. Shaded histogram indicates the reaction of M081-5 to the cells. Open histogram indicates the reaction of mouse PE labeled CD8 to the cells.**

The descriptions of the following protocols are examples. Each user should determine the appropriate condition.

## PROTOCOLS:

### Flow cytometric analysis for floating cells

We usually use Fisher tubes or equivalents as reaction tubes for all steps described below.

- 1) Wash the cells 3 times with washing buffer [PBS containing 2% fetal calf serum (FCS) and 0.1% NaN<sub>3</sub>].
- 2) Resuspend the cells with washing buffer (5x10<sup>6</sup> cells/mL).
- 3) Add 50  $\mu$ L of the cell suspension into each tube, and centrifuge at 500 x g for 1 minute at room temperature (20~25°C). Remove supernatant by careful aspiration.
- 4) Add 10  $\mu$ L of normal goat serum containing 0.09% NaN<sub>3</sub> to the cell pellet after tapping. Mix well and incubate for 5 minutes at room temperature.
- 5) Add 20  $\mu$ L of the PE labeled Rat IgG2a Isotype control. Mix well and incubate for 20 minutes at room temperature.
- 6) Add 1 mL of the washing buffer followed by centrifugation at 500 x g for 1 minute at room temperature. Remove supernatant by careful aspiration.
- 7) Resuspend the cells with 500  $\mu$ L of the washing buffer and analyze by a flow cytometer.

### Flow cytometric analysis for whole blood cells

We usually use Fisher tubes or equivalents as reaction tubes for all steps described below.

- 1) Add 20  $\mu$ L of PE labeled Rat IgG2a Isotype control into each tube.
- 2) Add 50  $\mu$ L of whole blood into each tube. Mix well, and incubate for 30 minutes at room temperature (20~25°C).
- 3) Add 1 mL of washing buffer [PBS containing 2% fetal calf serum (FCS) and 0.1% NaN<sub>3</sub>] followed by centrifugation at 500 x g for 1 minute at room temperature. Remove supernatant by careful aspiration.
- 4) Lyse with OptiLyse C (for analysis on Beckman Coulter instruments) or OptiLyse B (for analysis on BD instruments), using the procedure recommended in the respective package inserts.
- 5) Add 1 mL of H<sub>2</sub>O to each tube and incubate for 10 minutes at room temperature.
- 6) Centrifuge at 500 x g for 1 minute at room temperature. Remove supernatant by careful aspiration.
- 7) Add 1 mL of washing buffer followed by centrifugation at 500 x g for 1 minute at room temperature. Remove supernatant by careful aspiration.
- 8) Resuspend the cells with 500  $\mu$ L of the washing buffer and analyze by a flow cytometer.

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