SONY

Product Data Sheet

Pacific Blue™ anti-mouse CD40

Catalog # / Size: 1223125 / 25 µg
1223130 / 100 µg

Clone: 3/23

Isotype: Rat IgG2a, κ

Immunogen: Recombinant mouse CD40 protein

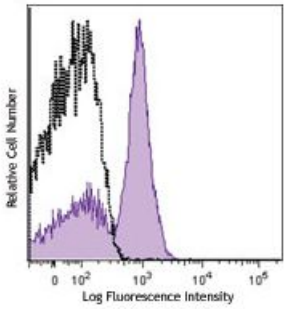
Reactivity: Mouse

Preparation: The antibody was purified by affinity chromatography and conjugated with Pacific Blue™ under optimal conditions.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

Workshop Number: HCDM listed

Concentration: 0.5



C57BL/6 mouse splenocytes were stained with CD40 (clone 3/23) Pacific Blue™ (filled histogram) or rat IgG2a, κPacific Blue™ isotype control (open histogram).

Applications:

Applications: Flow Cytometry

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is ≤1.0 µg per million cells in 100 µl volume or 100 µl of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

* Pacific Blue™ has a maximum emission of 455 nm when it is excited at 405 nm. Prior to using Pacific Blue™ conjugate for flow cytometric analysis, please verify your flow cytometer's capability of exciting and detecting the fluorochrome.

Application Notes: The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 124604). For highly sensitive assays, we recommend Ultra-LEAF™ purified antibody (Cat. No. 124628) with a lower endotoxin limit than standard LEAF™ purified antibodies (Endotoxin <0.01 EU/microg).

Application References:

1. Hasbold J, *et al.* 1994. *Eur. J. Immunol.* 24:1835.
2. Bourgeois C, *et al.* 2002. *Science* 297:2060.

Description: CD40 is a 48 kD type I transmembrane glycoprotein also known as Bp50. It is a member of the tumor necrosis factor receptor (TNFR) superfamily and is expressed on B cells, basal epithelial cells, macrophages, follicular dendritic cells, endothelial cells, and a subset of $CD34^+$ hematopoietic progenitors. CD40 regulates B cell development/maturation, Ig isotype switching and, in combination with other signals such as IL-4, protects B cells from surface Ig-induced apoptosis and promotes proliferation. Interaction of CD40 with its ligand CD154 (gp39), which is expressed on activated T cells, is important in costimulation and immune regulation.

Antigen References:

1. Grewal IS, *et al.* 1998. *Annu Rev Immunol* 16:111.

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