SONY

Product Data Sheet

APC anti-mouse CD154

Catalog # / Size: 1132550 / 100 µg
1132545 / 25 µg

Clone: MR1

Isotype: Hamster IgG

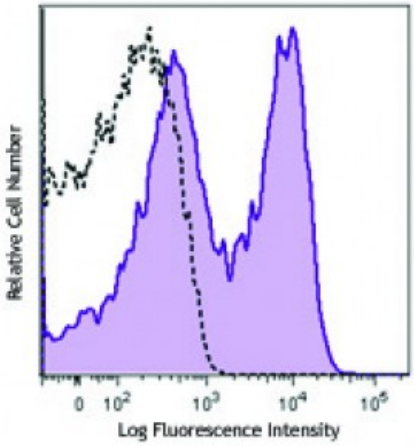
Immunogen: Activated mouse Th1 clone D1.6

Reactivity: Mouse

Preparation: The antibody was purified by affinity chromatography and conjugated with APC under optimal conditions. The solution is free of unconjugated APC and unconjugated antibody.

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

Concentration: 0.2



Enriched C57BL/6 mouse splenic T cells were stimulated with PMA + ionomycin for 6 hours and then stained with CD154 (clone MR1) APC (filled histogram) or Armenian hamster IgG APC 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 ≤0.25 microg per million cells in 100 microL volume. It is recommended that the reagent be titrated for optimal performance for each application.

Application Notes: Additional reported applications (for the relevant formats) include: immunohistochemical staining[1,2] of acetone-fixed frozen sections, and *in vitro* and *in vivo* blocking of ligand binding[3-5]. For most successful immunofluorescent staining results, it may be important to maximize signal over background by using a relatively bright fluorochrome-antibody conjugate (Cat. No. 106506) or by using a high sensitivity, three-layer staining technique (e.g., including a biotinylated antibody (Cat. No. 106504) or biotinylated anti-Armenian hamster IgG (Cat. No. 405501) second step, followed by SAv-PE (Cat. No. 45204)). The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 106508).

Application References:

1. Lettesjö H, *et al.* 2000. *J. Immunol.* 165:4095. (IHC)
2. Dunn RJ, *et al.* 1997. *J. Histochem. Cytochem.* 45:129. (IHC)
3. Noelle RJ, *et al.* 1992. *P. Natl. Acad. Sci. USA* 89:6550. (Block)
4. Roy M, *et al.* 1995. *Eur. J. Immunol.* 25:596. (Block)
5. Foy TM, *et al.* 1994. *J. Exp. Med.* 180:157. (Block)
6. Lawson BR, *et al.* 2007. *J. Immunol.* 178:5366.
7. Inoue M, *et al.* 2014. *PNAS.* 111:5295. PubMed

Description: CD154 is a 39 kD TNF superfamily member also known as CD40 ligand, gp39, T-BAM, TRAP, and Ly-62. CD154 is an accessory molecule expressed predominantly on activated $CD4^+$ lymphocytes that bind CD40. CD154 plays an important role in

T-B cell costimulation. The MR1 antibody has been reported to inhibit the activation of T and B lymphocytes *in vitro* and antigen-specific lymphocyte responses *in vivo*.

Antigen References:

1. Barclay A, *et al.* 1997. The Leukocyte Antigen FactsBook Academic Press.
2. Noelle RJ, *et al.* 1992. *P. Natl. Acad. Sci. USA* 89:6550.
3. Bancherou J, *et al.* 1994. *Annu. Rev. Immunol.* 12:881.