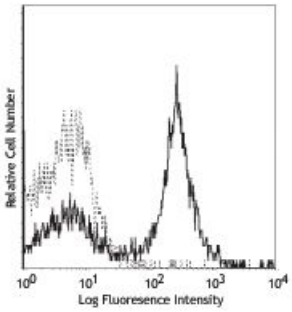
SONY

Product Data Sheet

Purified anti-mouse CD40

Catalog # / Size:	1114505 / 50 µg 1114510 / 500 µg
Clone:	HM40-3
Isotype:	Hamster IgM
Immunogen:	(BALB/c x NZB)F_1 mouse-derived lymphoma WEHI 231
Reactivity:	Mouse
Preparation:	This antibody is at >85% purity.
Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Concentration:	0.5



C57BL/6 splenocytes stained with HM40-3 biotin, then detected with Sav-PE

Applications:

Applications:	Flow Cytometry, Immunohistochemistry
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 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: blocking of CD40 ligand binding1, stimulation of mouse B cell and dendritic cell proliferation[2-6,9], and immunohistochemistry[7] of acetone-fixed frozen sections. The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 102908).

Application References:

1. Kawano T, *et al.* 1997. *Science* 278:1626. (Block)
2. Kaneko Y, *et al.* 1996. *Eur. J. Immunol.* 26:3061. (Costim)
3. Kashiwada M, *et al.* 1996. *Eur. J. Immunol.* 26:1451. (Costim)
4. Inaba M, *et al.* 1995. *Eur. J. Immunol.* 25:1244. (Costim)
5. Akiba H, *et al.* 1999. *J. Immunol.* 162:7058. (Costim)
6. Ridge JP, *et al.* 1998. *Nature* 393:474. (Costim)
7. Morelli AE, *et al.* 2000. *Transplantation* 69:2647. (IHC)
8. Ma XT, *et al.* 2006. *Cancer Research* 66:1169.
9. Yu X, *et al.* 2006. *J. Biol. Chem.* 281:15505. (Costim)
10. del Rio ML, *et al.* 2011. *Transpl. Int.* 24:501. (FC) PubMed
11. Folgosa L, *et al.* 2013. *J. Immunol.* 191:5951. PubMed

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, 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) expressed on activated T cells, is important in costimulation and immune regulation. The HM40-3 antibody has been reported to stimulate dendritic and B cell proliferation and block CD40-CD40L interactions.

Antigen References:

1. Barclay A, *et al.* 1997. The Leukocyte Antigen FactsBook Academic Press.
2. Bancherou J, *et al.* 1994. *Annu. Rev. Immunol.* 12:881.
3. Clark EA, *et al.* 1996. *P. Natl. Acad. Sci. USA* 83:4494.