Datasheet for ABIN1302520

anti-CD40 Ligand antibody

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Overview

Quantity:	0.1 mg
Target:	CD40 Ligand (CD40LG)
Reactivity:	Mouse
Host:	Armenian Hamster
Clonality:	Monoclonal
Conjugate:	This CD40 Ligand antibody is un-conjugated
Application:	Flow Cytometry (FACS), Immunohistochemistry (IHC), Immunoprecipitation (IP), Immunocytochemistry (ICC), Functional Studies (Func)

Product Details

Immunogen:	Activated mouse Th1 clone D1.6
Clone:	MR-1
Isotype:	IgG1
Specificity:	The Armenian hamster monoclonal antibody MR-1 detects an extracellular epitope on murine CD154 / CD40L (CD40-ligand), a 39 kDa cell surface type II glycoprotein expressed predominantly on activated CD4+ lymphocytes.
Cross-Reactivity (Details):	Mouse
Purification:	Purified by protein-A affinity chromatography.
Purity:	> 95 % (by SDS-PAGE)
Endotoxin Level:	Endotoxin level is less than 0.01 EU/µg of the protein, as determined by the LAL test.

Target Details

Target:	CD40 Ligand (CD40LG)
Alternative Name:	CD154 / CD40L (CD40LG Products)
Background:	CD40 ligand,CD154 / CD40L (CD40 ligand) is a member of the tumor necrosis factor family, and is expressed primarily on activated CD4+ lymphocytes, but also on mast cells, basophils, eosinophils and human dendritic cells. Its counter-receptor CD40 is expressed on antigen presenting cells, including dendritic cells, macrophages, and B cells, and also on fibroblasts. Triggering of CD40 by CD40L causes maturation of dendritic cells and upregulation of antigen presentation in functions of the MHC and costimulatory molecules. CD40L also functions as a direct stimulating factor for T cells. CD40L plays also roles e.g. in antibody class switching and modulation of apoptosis in the germinal center.,CD40L, CD40 ligand, TNFSF5, Ly62, gp39, T-BAM
Gene ID:	959
UniProt:	P29965
Pathways:	NF-kappaB Signaling, Production of Molecular Mediator of Immune Response, Cancer Immune Checkpoints

Application Details

Application Notes:	Functional application: Blocking T cell costimulation in vivo. Flow cytometry: Recommended dilution: 4 µg/mL, positive control: 6-8 hour activated mouse splenocytes.
Restrictions:	For Research Use only

Handling

Concentration:	1 mg/mL
Buffer:	Phosphate buffered saline (PBS), pH 7.4
Preservative:	Azide free
Handling Advice:	**Do not freeze.**
Storage:	4 °C
Storage Comment:	Store at 2-8°C. Do not freeze.

Publications

Product cited in:

Shin, Kennedy, Gorski, Tsuchiya, Koseki, Azuma, Yagita, Chen, Powell, Pardoll, Housseau: " Cooperative B7-1/2 (CD80/CD86) and B7-DC costimulation of CD4+ T cells independent of the PD-1 receptor." in: **The Journal of experimental medicine**, Vol. 198, Issue 1, pp. 31-8, (2003) (PubMed).

Luzina, Atamas, Storrer, daSilva, Kelsoe, Papadimitriou, Handwerger: "Spontaneous formation of germinal centers in autoimmune mice." in: **Journal of leukocyte biology**, Vol. 70, Issue 4, pp. 578-84, (2001) (PubMed).

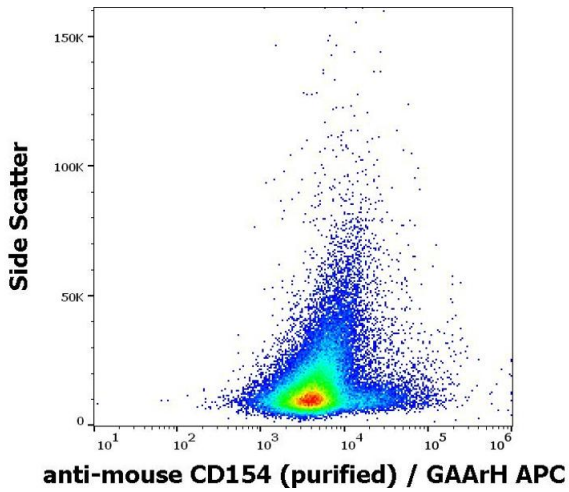
Fischbein, Ardehali, Yun, Schoenberger, Laks, Irie, Dempsey, Cheng, Fishbein, Bonavida: "CD40 signaling replaces CD4+ lymphocytes and its blocking prevents chronic rejection of heart transplants." in: **Journal of immunology (Baltimore, Md. : 1950)**, Vol. 165, Issue 12, pp. 7316-22, (2000) (PubMed).

Hwang, Nahm, Briles, Thomas, Purkerson: "Acquired, but not innate, immune responses to Streptococcus pneumoniae are compromised by neutralization of CD40L." in: **Infection and immunity**, Vol. 68, Issue 2, pp. 511-7, (2000) (PubMed).

Lode, Xiang, Pertl, Förster, Schoenberger, Gillies, Reisfeld: "Melanoma immunotherapy by targeted IL-2 depends on CD4(+) T-cell help mediated by CD40/CD40L interaction." in: **The Journal of clinical investigation**, Vol. 105, Issue 11, pp. 1623-30, (2000) (PubMed).

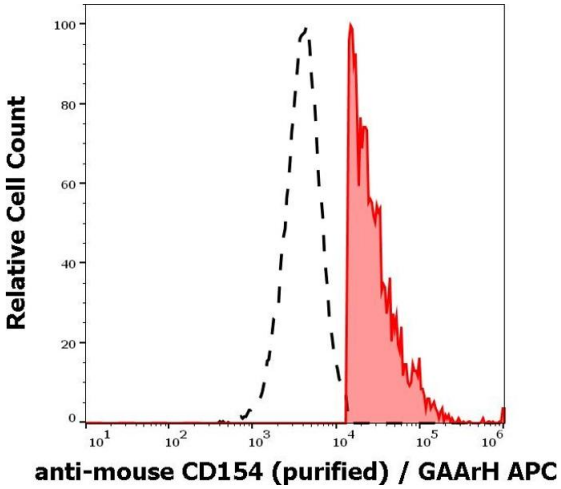
There are more publications referencing this product on: Product page

Images



Flow Cytometry

Image 1. Flow cytometry surface staining pattern of murine PMA, ionomycin and LPS stimulated splenocytes stained using anti-mouse CD154 (MR-1) purified antibody (low endotoxin, concentration in sample 3 µg/mL, GAArH APC).



Flow Cytometry

Image 2. Separation of CD154 positive cells (red-filled) from CD154 negative cells (black-dashed) in flow cytometry analysis (surface staining) of murine PMA, ionomycin and LPS stimulated splenocytes stained using anti-mouse CD154 (MR-1) purified antibody (low endotoxin, concentration in sample 3 µg/mL, GAArH APC).