

Ultra-LEAF™ Purified anti-mouse CD276 (B7-H3) Antibody

Catalog# / Size	135617 / 100 µg 135618 / 1 mg
Clone	MIH35
Regulatory Status	RUO
Other Names	B7RP2
Isotype	Rat IgG2a, κ
Description	B7-H3 is a type I transmembrane protein belonging to the B7 family of co-stimulatory proteins. B7-H3 is mostly expressed on professional APCs including B cells, macrophages, and dendritic cells at low levels. It is detected on various human and murine tumor cells, nasal and airway epithelial cells. Its expression on dendritic cells appears to be up-regulated by LPS. Initial studies have shown that B7-H3 provides a stimulatory signal to T cells. However, recent studies suggest a negative regulatory role for B7-H3 in T cell responses. Mouse B7-H3 protein inhibited T cell activation and effector cytokine production. Thus, the immunological function of B7-H3 remains unclear. B7-H3 is involved in the suppression of Th1-mediated immune responses and plays an important role in the development of pathogenic Th2 cells in a murine asthma model. Monoclonal antibody against B7-H3 enhances T cell proliferation <i>in vitro</i> and leads to exacerbated EAE <i>in vivo</i> . It has been reported that the Triggering Receptor Expressed on Myeloid cells (TREM)-like Transcript 2 (TLT-2, TREML2) is a receptor for B7-H3 in mice, although it remains controversial. Further studies are needed to identify the receptor of B7-H3.

Product Details

Verified Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	Mouse B7-H3 transfected L cell and P815
Formulation	0.2 µm filtered in phosphate-buffered solution, pH 7.2, containing no preservative. Endotoxin level is < 0.01 EU/µg of the protein (< 0.001 ng/µg of the protein) as determined by the LAL test.
Preparation	The Ultra-LEAF™ (Low Endotoxin, Azide-Free) antibody was purified by affinity chromatography.
Concentration	The antibody is bottled at the concentration indicated on the vial, typically between 2 mg/mL and 3 mg/mL. Older lots may have also been bottled at 1 mg/mL. To obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C. This Ultra-LEAF™ solution contains no preservative; handle under aseptic conditions.
Application	FC - Quality tested FA - Reported in the literature, not verified in house
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 µg per million cells in 100 µL volume. It is recommended that the reagent be titrated for optimal performance for each application.
Application References (PubMed link indicates BioLegend citation)	1. Hashiguchi M, <i>et al.</i> 2008. <i>Proc Natl Acad Sci USA</i> . 105(30):10495. 2. del Rio ML, <i>et al.</i> 2011. <i>Transpl. Int.</i> 24:501. (FC) PubMed
RRID	AB_2832489 (BioLegend Cat. No. 135617) AB_2832490 (BioLegend Cat. No. 135618)

Antigen Details

Structure	A 49.7 kD member of the B7 family of the Ig superfamily proteins.
Distribution	Mostly expressed on professional APCs, including B cells, macrophages, and dendritic cells at low level.
Function	Provides a stimulatory signal to T cells, plays a negative regulatory role in T cell responses as well.
Ligand/Receptor	The receptor has not been completely identified, but it seems to be expressed on activated T cells.
Cell Type	Antigen-presenting cells, B cells, Dendritic cells
Biology Area	Cell Biology, Costimulatory Molecules, Immunology, Signal Transduction
Molecular Family	CD Molecules
Antigen References	<ol style="list-style-type: none">1. Nagashima O, <i>et al.</i> 2008. <i>J. Immunol.</i> 181:40622. Prasad DVR, <i>et al.</i> 2004. <i>J. Immunol.</i> 173:25003. Sun M, <i>et al.</i> 2002. <i>J. Immunol.</i> 168:62944. Xu J, <i>et al.</i> 2006. <i>Cellular and Molecular Immunology.</i> 3(3):2355. Ford JW, <i>et al.</i> 2009. <i>Curr Opin Immunol.</i> 21(1):386. Leitner J, <i>et al.</i> 2009. <i>Eur. J. Immunol.</i> 2009. 39(7):1754
Gene ID	102657

Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

Purified anti-mouse CD276 (B7-H3), PE anti-mouse CD276 (B7-H3), APC anti-mouse CD276 (B7-H3), Biotin anti-mouse CD276 (B7-H3), PE/Dazzle™ 594 anti-mouse CD276 (B7-H3), PE/Cyanine7 anti-mouse CD276 (B7-H3), PerCP/Cyanine5.5 anti-mouse CD276 (B7-H3), Ultra-LEAF™ Purified anti-mouse CD276 (B7-H3)

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BioLegend Inc., 8999 BioLegend Way, San Diego, CA 92121 www.biolegend.com
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587