

Ultra-LEAF™ Purified anti-mouse CD178.1 (FasL) Antibody

Catalog# / Size	106809 / 100 µg 106810 / 1 mg
Clone	Kay-10
Regulatory Status	RUO
Other Names	Fas Ligand, FasL, Apo-1 Ligand, CD95 Ligand
Isotype	Mouse IgG2b, κ
Description	CD178.1 is a 40 kD Fas ligand alloantigen (designated as mFasL.1) expressed on the activated T lymphocytes, testis, and eye of selected mouse strains including C57BL/6, C3H, MRL, NOD, NZB, NZW, and SJL. It does not react with lymphoblasts from BALB/c, DBA/1, or DBA/2 mice. CD178.1 is upregulated in activated T cells upon TCR re-engagement and has been shown to induce autocrine and paracrine T cell death. CD178 expression in the eye and testis has been shown to participate in immune privilege at these sites. Functional studies suggest that mFasL.2 has higher specific activity than mFasL.1. CD178 can be cleaved from the surface by metalloproteases, and "soluble" CD178 may block the activities of membrane-bound CD178. CD178 binds to CD95 (Fas) to induce apoptotic cell death implicated in the maintenance of peripheral tolerance. CD178/CD95 interactions have been implicated in the proliferation of CD8 ⁺ cells and neutrophil extravasation, chemotaxis, and survival. The Kay-10 antibody has been reported to block CD178.1/CD95 induced apoptosis in cells derived from mice expressing this alloantigen.

Product Details

Verified Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	C57BL/6 mouse FasL cDNA-transfected L5178Y cells
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
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 Notes	Additional reported applications (for the relevant formats) include: <i>in vitro</i> blocking ^{1,2} and <i>in vivo</i> blocking ³⁻⁵ , and immunohistochemical staining ⁶ of formalin-fixed paraffin-embedded tissue sections. Fas Ligand is expressed at low density on activated cells. 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. 106806) or by using a high sensitivity, three-layer staining technique (e.g., including biotinylated anti-mouse IgG (Cat. No. 405303) second step, followed by SAv-PE (Cat. No. 405204)). The Ultra-LEAF™ purified antibody (Endotoxin <0.01 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 106809 and 106810).

Application References

1. Kayagaki N, *et al.* 1997. *P. Natl. Acad. Sci. USA* 94:3914.
2. Kobata T, *et al.* 1997. *Immunology* 92:206.
3. Hattori K, *et al.* 1998. *Blood* 91:4051.
4. Takeda Y, *et al.* 1998. *Diabetologia* 41:315.
5. Kim YH, *et al.* 1999. *Eur. J. Immunol.* 29:455.
6. Takeda Y, *et al.* 1998. *Diabetologia* 41:315.

RRID AB_2819812 (BioLegend Cat. No. 106809)
 AB_2819813 (BioLegend Cat. No. 106810)

Antigen Details

Structure	TNF superfamily Fas ligand alloantigen, 40 kD
Distribution	Activated T cells, spleen, testis, eye of some selected mouse strains (C57BL/6, C3H, NZB, NZw, MRL)
Function	Induces apoptosis
Ligand/Receptor	Fas (CD95)
Cell Type	T cells, Tregs
Biology Area	Apoptosis/Tumor Suppressors/Cell Death, Cell Biology, Immunology, Neuroscience
Molecular Family	CD Molecules
Antigen References	<ol style="list-style-type: none"> 1. Barclay A, <i>et al.</i> 1997. <i>The Leukocyte Antigen FactsBook</i> Academic Press. 2. Nagata S. 1999. <i>Annu. Rev. Genet.</i> 33:209. 3. Takahashi T, <i>et al.</i> 1994. <i>Cell</i> 76:969. 4. Hill LL, <i>et al.</i> 1999. <i>Science</i> 285:898. 5. Kayagaki N, <i>et al.</i> 1997. <i>P. Natl. Acad. Sci. USA</i> 94:3914.
Gene ID	14103

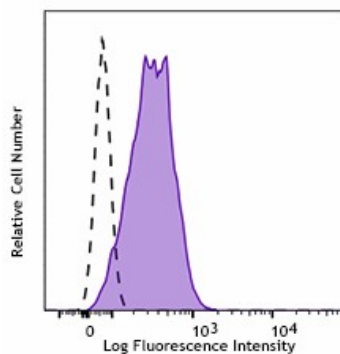
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

LEAF™ Purified anti-mouse CD178.1 (FasL), PE anti-mouse CD178.1 (FasL), Ultra-LEAF™ Purified anti-mouse CD178.1 (FasL)

Product Data



Mouse FasL transfected cell line stained with CD178.1 (FasL) (clone Kay-10) purified (filled histogram) or mouse IgG2a, κ purified isotype ctrl (open histogram) followed by anti-mouse IgG2 biotin and streptavidin PE.

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