

TotalSeq™-A1012 anti-mouse CD178 (FasL) Antibody

Catalog# / Size	106613 / 10 µg
Clone	MFL3
Regulatory Status	RUO
Other Names	Fas Ligand, FasL, Apo-1 Ligand, CD95 Ligand, TNFSF6
Isotype	Armenian Hamster IgG
Barcode Sequence	GTCACGTAGTATCTT
Description	CD178 is a 40 kD member of the TNF/NGF superfamily also known as Fas ligand, FasL, Apo-1 ligand, and CD95 ligand. Cell surface CD178 is expressed on activated T cells and in testis and eye. CD178 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. 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 also been implicated in the proliferation of CD8+ cells and neutrophil extravasation, chemotaxis, and survival. The MFL3 antibody recognizes CD178 in a wide array of mouse strains and has been reported to block CD178/CD95 induced apoptosis.

Product Details

Verified Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Armenian Hamster
Immunogen	B6 mouse FasL cDNA-transfected baby hamster kidney (B6 FasL/BHK) cells
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 1 mM EDTA
Preparation	The antibody was purified by chromatography and conjugated with TotalSeq™-A oligomer under optimal conditions.
Concentration	0.5 mg/mL
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C. Do not freeze.
Application	PG - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis and the oligomer sequence is confirmed by sequencing. TotalSeq™-A antibodies are compatible with 10x Genomics Single Cell Gene Expression Solutions . To maximize performance, it is strongly recommended that the reagent be titrated for each application, and that you centrifuge the antibody dilution before adding to the cells at 14,000xg at 2 - 8°C for 10 minutes. Carefully pipette out the liquid avoiding the bottom of the tube and add to the cell suspension. For Proteogenomics analysis, the suggested starting amount of this reagent for titration is ≤ 1.0 µg per million cells in 100 µL volume. Refer to the corresponding TotalSeq™ protocol for specific staining instructions. Buyer is solely responsible for determining whether Buyer has all intellectual property rights that are necessary for Buyer's intended uses of the BioLegend TotalSeq™ products. For example, for any technology platform Buyer uses with TotalSeq™, it is Buyer's sole responsibility to determine whether it has all necessary third party intellectual property rights to use that platform and TotalSeq™ with that platform.
Application Notes	Additional reported applications (for the relevant formats) include: inhibition of the cytotoxicity ¹⁻³ and immunofluorescence microscopy ⁴ . 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. 106606) or

by using a high sensitivity, three-layer staining technique (e.g., including a biotinylated antibody (Cat. No. 106604) or biotinylated anti-Armenian hamster IgG (Cat. No. 405501) 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. Nos. 106612).

Additional Product Notes

TotalSeq™ reagents are designed to profile protein levels at a single cell level following an optimized protocol similar to the CITE-seq workflow. A compatible single cell device (e.g. [10x Genomics Chromium System and Reagents](#)) and sequencer (e.g. Illumina analyzers) are required. Please contact [technical support](#) for more information, or visit [biolegend.com/totalseq](#).

The barcode flanking sequences are CCTTGGCACCCGAGAATTCCA (PCR handle), and BAAAAAAAAAAAAAAAAAAAAAAAAAAAAA*A*A (capture sequence). B represents either C, G, or T, and * indicates a phosphorothioated bond, to prevent nuclease degradation.

View more applications data for this product in our [Scientific Poster Library](#).

Application References

1. Fuller CL, *et al.* 1999. *J. Immunol.* 162:6337.
2. Kayagaki N, *et al.* 1997. *P. Natl. Acad. Sci. USA* 94:3914.
3. Seko Y, *et al.* 2002. *J. Am. Coll. Cardiol.* 39:1399.
4. Park H, *et al.* 2005. *J. Immunol.* 175:7193.
5. Lundqvist A, *et al.* 2009. *Blood* 113:6120. [PubMed](#)
6. Oida T, *et al.* 2011. *PLoS ONE* 6(4):e18365. (Block) [PubMed](#).
7. Oura R, *et al.* 2013. *J. Immunol.* 190:578. [PubMed](#).

RRID

AB_2832354 (BioLegend Cat. No. 106613)

Antigen Details

Structure	TNF superfamily, 40 kD
Distribution	Activated T cells, spleen, testis, eye
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. The Leukocyte Antigen FactsBook 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.
Gene ID	14103

Related Protocols

[TotalSeq™-A Antibodies and Cell Hashing with 10x Single Cell 3' Reagent Kit v3 3.1 Protocol](#)

Other Formats

Biotin anti-mouse CD178 (FasL), PE anti-mouse CD178 (FasL), Purified anti-mouse CD178 (FasL), APC anti-mouse CD178 (FasL), Ultra-LEAF™ Purified anti-mouse CD178 (FasL), TotalSeq™-A1012 anti-mouse CD178 (FasL), TotalSeq™-C1012 anti-mouse CD178 (FasL)

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