TotalSeq™-A0197 anti-mouse CD69 Antibody

Catalog# / Size	104546 / 10 µg
Clone	H1.2F3
Regulatory Status	RUO
Other Names	Very Early Activation Antigen (VEA), AIM, EA1, MLR3, gp34/28
Isotype	Armenian Hamster IgG
Barcode Sequence	TTGTATTCCGCCATT
Description	CD69 is a 60 kD type II membrane protein composed of a 27/33 kD disulfide-linked homodimer, also known as Very Early Activation Antigen (VEA), AIM, EA1, MLR3, and gp34/28. It is expressed on a subset of thymocytes and platelets. CD69 is rapidly induced on activated T and B cells, neutrophils, and NK cells. It is a C-type lectin, closely related to the NKR-P1 and Ly-49 NK cell activation molecules. CD69 is involved in the early events of cell activation and thymocyte positive selection.

Product Details

Verified Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Armenian Hamster
Immunogen	Mouse dendritic epidermal T cell line Y245
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	The H1.2F3 antibody has been reported to augment T cell activation. Additional reported applications (for the relevant formats) include: *in vitro* T cell and NK cell activation[1-3], immunohistochemistry[4,5], and immunoprecipitation[1]. This antibody has been characterized in the literature as containing a lambda (?) light chain.
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 BAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA*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

(PubMed link indicates BioLegend citation)

1. Yokoyama WM, *et al.* 1988. *J. Immunol.* 141:369. (IP)
2. Sobel ES, *et al.* 1993. *J. Immunol.* 150:673.
3. Karlhofer FM, *et al.* 1991. *J. Immunol.* 146:3662.
4. Zhou X, *et al.* 2005. *J. Biol. Chem.* 280:31240. (IHC)
5. Podd BS, *et al.* 2006. *J. Immunol.* 176:6532. (IHC)
6. Lawson BR, *et al.* 2007. *J. Immunol.* 178:5366.
7. Lee JW, *et al.* 2006. *Nature Immunol.* 8:181.
8. Epardaud M, *et al.* 2008. *Cancer Res.* 15:2972. PubMed
9. Jordan JM, *et al.* 2008. 76:3717. PubMed
10. Kenna TJ, *et al.* 2008. *Blood* 111:2091. PubMed
11. Ishikawa C, *et al.* 2013. *Biochim Biophys Acta.* 167:99. PubMed

Product Citations

1. Trittel S, *et al.* 2019. Sci Rep. 9:16362. PubMed

RRID

AB_2750539 (BioLegend Cat. No. 104546)

Antigen Details

Structure

C-type lectin, 27/33 kD

Distribution

Activated T cells and B cells, NK cells, granulocytes, thymocytes, platelets

Function

Lymphocyte activation

Cell Type

B cells, Granulocytes, NK cells, Platelets, T cells, Thymocytes, Tregs

Biology Area

Costimulatory Molecules, Immunology, Innate Immunity

Molecular Family

CD Molecules

Antigen References

1. Barclay AN, *et al.* 1997. The Leukocyte Antigen FactsBook Academic Press.
2. Testi R, *et al.* 1994. *Immunol. Today* 15:479.
3. Moretta A, *et al.* 1991. *J. Exp. Med.* 174:1393.
4. Yokoyama WM, *et al.* 1988. *J. Immunol.* 141:369.

Gene ID

12515

Related Protocols

TotalSeq™-A Antibodies and Cell Hashing with 10x Single Cell 3' Reagent Kit v3 3.1 Protocol

Other Formats

Biotin anti-mouse CD69, FITC anti-mouse CD69, PE anti-mouse CD69, PE/Cyanine5 anti-mouse CD69, Purified anti-mouse CD69, PE/Cyanine7 anti-mouse CD69, APC anti-mouse CD69, Alexa Fluor® 488 anti-mouse CD69, Alexa Fluor® 647 anti-mouse CD69, PerCP anti-mouse CD69, PerCP/Cyanine5.5 anti-mouse CD69, Pacific Blue™ anti-mouse CD69, Brilliant Violet 421™ anti-mouse CD69, APC/Cyanine7 anti-mouse CD69, Brilliant Violet 605™ anti-mouse CD69, Brilliant Violet 510™ anti-mouse CD69, Purified anti-mouse CD69 (Maxpar® Ready), PE/Dazzle™ 594 anti-mouse CD69, Brilliant Violet 711™ anti-mouse CD69, Alexa Fluor® 700 anti-mouse CD69, Brilliant Violet 650™ anti-mouse CD69, Brilliant Violet 785™ anti-mouse CD69, TotalSeq™-A0197 anti-mouse CD69, APC/Fire™ 750 anti-mouse CD69, TotalSeq™-C0197 anti-mouse CD69, TotalSeq™-B0197 anti-mouse CD69, KIRAVIA Blue 520™ anti-mouse CD69, Spark NIR™ 685 anti-mouse CD69, Spark Red™ 718 anti-mouse CD69

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