

Purified anti-mouse/human GL7 Antigen (T and B cell Activation Marker) Antibody

Catalog# / Size	144601 / 50 µg 144602 / 500 µg
Clone	GL7
Regulatory Status	RUO
Other Names	Ly77, T and B cell activation marker
Isotype	Rat IgM, κ
Description	The GL7 antigen, also known as Ly77, is a 35 kD protein. The GL7 antigen has an epitope containing non-sulfated α2-6-sialyl-LacNAc recognized by the GL7 antibody. The GL7 antigen is expressed by pre-B and immature B cells, activated T and B cells, and about 20% of TCR-bright thymocytes. It is upregulated on mouse splenocytes following activation. It may play a role in regulation or adhesion. GL7 high-expressing B cells show higher antibody production and antigen presenting capacity.

Product Details

Verified Reactivity	Mouse, Human
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	LPS activated DBA/J mouse B cells
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography.
Concentration	0.5 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C.
Application	FC - Quality tested ELISA, IHC-F, IP - 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 ≤0.5 µg per million cells in 100 µl volume. For immunohistochemical staining on frozen tissue sections, the suggested use of this reagent is 2.5 - 5.0 µg per ml. It is recommended that the reagent be titrated for optimal performance for each application.
Application Notes	The GL7 antibody does not block the binding of CD22 with sulfated α2-6-sialyl-LacNAc. Cross-reactivity to ferret has been reported by a collaborator, but not verified in house.
Application References	<ol style="list-style-type: none"> 1. Laszlo G, <i>et al.</i> 1993. <i>J. Immunol.</i> 150:5252. (FC, IP) 2. Hartgring SA, <i>et al.</i> 2012. <i>Arthritis Res. Ther.</i> 14:R137. (FC) 3. Taylor JJ, <i>et al.</i> 2012. <i>J. Exp. Med.</i> 209:597. (FC, IHC) 4. Balogh A, <i>et al.</i> 2010. <i>Immunol. Lett.</i> 130:89. (IHC) 5. Kimura N, <i>et al.</i> 2007. <i>J. Biol. Chem.</i> 282:32200. (ELISA, FC)
Product Citations	<ol style="list-style-type: none"> 1. Ma W, <i>et al.</i> 2017. <i>Sci Rep.</i> . 10.1038/s41598-017-15661-6. PubMed 2. Papa I, <i>et al.</i> 2017. <i>Nature.</i> 547:318. PubMed 3. Duncan CG, <i>et al.</i> 2018. <i>G3 (Bethesda).</i> 0.892361111. PubMed 4. Fonseca JA, <i>et al.</i> 2018. <i>Vaccine.</i> 36:2799. PubMed 5. Crawford G, <i>et al.</i> 2018. <i>Nat Immunol.</i> 1.388194444. PubMed 6. Abboud G, <i>et al.</i> 2018. <i>Front Immunol.</i> 9:1973. PubMed 7. Niss Arfelt K, <i>et al.</i> 2017. <i>Blood.</i> 129:866. PubMed

RRID

AB_2561547 (BioLegend Cat. No. 144601)
AB_2561548 (BioLegend Cat. No. 144602)

Antigen Details

Structure	35 kD
Distribution	Germinal center B cells, activated B and T cells
Function	Upregulated on activated B cells via <i>in situ</i> repression of CMP-Neu5Ac-hydroxylase
Ligand/Receptor	Neu5Ac-recognizing lectins
Cell Type	B cells, T cells
Biology Area	Immunology, Innate Immunity
Molecular Family	CD Molecules
Antigen References	1. Laszlo G, <i>et al.</i> 1993. <i>J. Immunol.</i> 150:5252. 2. Hathcock KS, <i>et al.</i> 1995. <i>J. Immunol.</i> 155:4575. 3. Cervenak K, <i>et al.</i> 2001. <i>Immunol. Lett.</i> 78:89.
Gene ID	NA

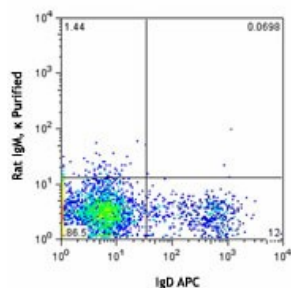
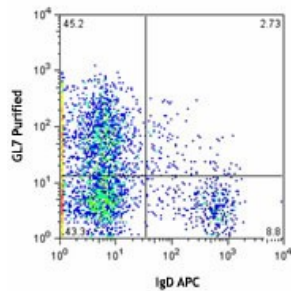
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

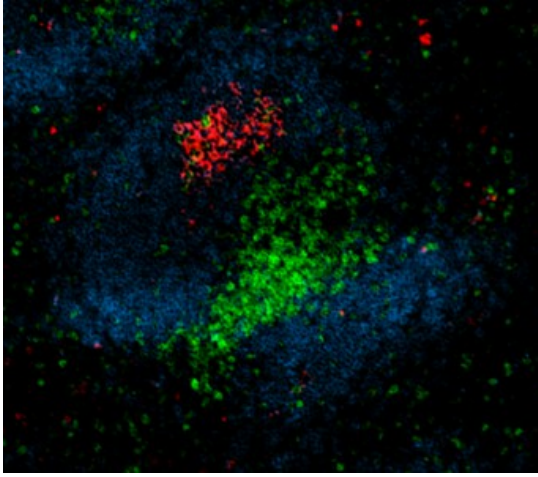
Other Formats

Biotin anti-mouse/human GL7 Antigen (T and B cell Activation Marker), APC anti-mouse/human GL7 Antigen (T and B cell Activation Marker), PE/Cyanine7 anti-mouse/human GL7 Antigen (T and B cell Activation Marker), Purified anti-mouse/human GL7 Antigen (T and B cell Activation Marker), FITC anti-mouse/human GL7 Antigen (T and B cell Activation Marker), Alexa Fluor® 647 anti-mouse/human GL7 Antigen (T and B cell Activation Marker), PE anti-mouse/human GL7 Antigen (T and B cell Activation Marker), PerCP/Cyanine5.5 anti-mouse/human GL7 Antigen (T and B cell Activation Marker), Alexa Fluor® 488 anti-mouse/human GL7 Antigen (T and B cell Activation Marker), Pacific Blue™ anti-mouse/human GL7 Antigen (T and B cell Activation Marker)

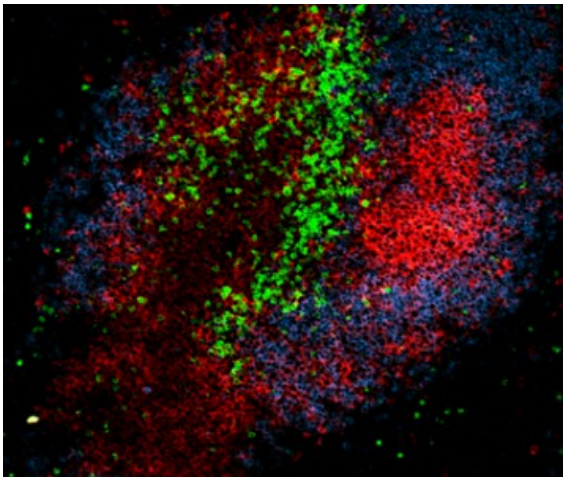
Product Data



Balb/c mouse bone marrow cells were stained with IgD APC and purified GL7 (clone GL7, top) or purified rat IgM, κ isotype control (bottom), followed by anti-rat IgM FITC.



C57BL/6 mouse frozen spleen section was fixed with 4% paraformaldehyde (PFA) for 10 minutes at room temperature and blocked with 5% FBS for 30 minutes at room temperature. Then the section was stained with 10 $\mu\text{g}/\text{ml}$ of GL7 (clone GL7) purified, CD3 (clone 17A2) Alexa Fluor® 647 (green) and B220 (clone RA3-6B2) Alexa Fluor® 488 (blue) overnight at 4°C, followed by 2.5 $\mu\text{g}/\text{ml}$ of anti-rat IgM (clone MRM-47) Biotin for 2 hours, followed by 2.5 $\mu\text{g}/\text{ml}$ of Streptavidin Alexa Fluor® 594 (red) for 2 hours at room temperature. The image was captured by 10X objective.



LPS-challenged C57BL/6 mouse frozen spleen section was fixed with 4% paraformaldehyde (PFA) for 10 minutes at room temperature and blocked with 5% FBS for 30 minutes at room temperature. Then the section was stained with 10 $\mu\text{g}/\text{ml}$ of GL7 (clone GL7) purified, CD3 (clone 17A2) Alexa Fluor® 647 (green) and B220 (clone RA3-6B2) Alexa Fluor® 488 (blue) overnight at 4°C, followed by 2.5 $\mu\text{g}/\text{ml}$ of anti-rat IgM (clone MRM-47) Biotin for 2 hours, followed by 2.5 $\mu\text{g}/\text{ml}$ of Streptavidin Alexa Fluor® 594 (red) for 2 hours at room temperature. The image was captured by 10X objective.

For research use only. Not for diagnostic use. Not for resale. BioLegend will not be held responsible for patent infringement or other violations that may occur with the use of our products.

*These products may be covered by one or more Limited Use Label Licenses (see the BioLegend Catalog or our website, www.biolegend.com/ordering#license). BioLegend products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products, reverse engineer functionally similar materials, or to provide a service to third parties without written approval of BioLegend. By use of these products you accept the terms and conditions of all applicable Limited Use Label Licenses. Unless otherwise indicated, these products are for research use only and are not intended for human or animal diagnostic, therapeutic or commercial use.

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