

Datasheet: MCA2409A647

Description:	MOUSE ANTI HUMAN CD178:Alexa Fluor® 647
Specificity:	CD178
Other names:	FAS LIGAND
Format:	ALEXA FLUOR® 647
Product Type:	Monoclonal Antibody
Clone:	14C2
Isotype:	IgG1
Quantity:	100 TESTS/1ml

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry (1)	▪			Neat

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

(1) Results maybe enhanced using membrane permeabilisation. Membrane permeabilization is required for this application. The use of Leucoperm (Product Code [BUF09](#)) is recommended for this purpose.

Target Species	Human		
Product Form	Purified IgG conjugated to Alexa Fluor® 647 - liquid		
Max Ex/Em	Fluorophore Alexa Fluor®647	Excitation Max (nm) 650	Emission Max (nm) 665
Preparation	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant		
Buffer Solution	Phosphate buffered saline		
Preservative	0.09% Sodium Azide		
Stabilisers	1% Bovine Serum Albumin		

Approx. Protein Concentrations	IgG concentration 0.05 mg/ml
External Database Links	<p>UniProt: P48023 Related reagents</p> <p>Entrez Gene: 356 FASLG Related reagents</p>
Synonyms	APT1LG1, CD95L, FASL, TNFSF6
RRID	AB_566577
Fusion Partners	Spleen cells from immunized BALB/c mice were fused with cells of the P3U1 myeloma cell line.
Specificity	<p>Mouse anti Human CD178 antibody, clone 14C2 recognizes the human CD178, also known as Tumor necrosis factor ligand superfamily member 6, Fas ligand (FasL), Apoptosis antigen ligand or CD95 ligand. CD178 is a 281 amino acid, a ~40 kDa single pass type-II transmembrane glycoprotein bearing a single intracellular FasL domain and member of the tumor necrosis factor family .</p> <p>CD178 is expressed by activated T lymphocytes and NK cells (Leite-de-Moraes and Dy 1997). The protein may exist as either a membrane bound or a cleaved soluble form (Garcia et al. 2013). CD178 plays an important role in T cell mediated cytotoxicity (Jodo et al. 2005). Binding of CD178 to Fas (CD95) results in the induction of apoptosis (Ju et al. 1995).</p> <p>Mouse anti human CD178 antibody, clone 14C2 is reported to recognize a conformation dependent non-blocking epitope on CD178 (Daburon et al. 2013).</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label 1x10 ⁶ cells in 100ul.
References	<ol style="list-style-type: none"> Legembre, P. <i>et al.</i> (2005) Amplification of Fas-mediated apoptosis in type II cells via microdomain recruitment. Mol Cell Biol. 25 (15): 6811-20. Mesdaghi, M. <i>et al.</i> (2010) Natural killer cells in allergic rhinitis patients and nonatopic controls. Int Arch Allergy Immunol. 153 (3): 234-8. Lindqvist CA <i>et al.</i> (2011) Both CD4+ FoxP3+ and CD4+ FoxP3- T cells from patients with B-cell malignancy express cytolytic markers and kill autologous leukaemic B cells <i>in vitro</i>. Immunology. 133 (3): 296-306. Matzner, P. <i>et al.</i> (2013) Resilience of the immune system in healthy young students to 30-hour sleep deprivation with psychological stress. Neuroimmunomodulation. 20: 194-204. Li, R. <i>et al.</i> (2014) Human heat shock protein-specific cytotoxic T lymphocytes display potent antitumour immunity in multiple myeloma. Br J Haematol. 166 (5): 690-701. Ouwendijk, W.J. <i>et al.</i> (2014) Functional characterization of ocular-derived human alphaherpesvirus cross-reactive CD4 T cells. J Immunol. 192: 3730-9.

7. Sullivan, E.M. *et al.* (2014) NK cell genotype and phenotype at diagnosis of acute lymphoblastic leukemia correlate with postinduction residual disease. [Clin Cancer Res. 20 \(23\): 5986-94.](#)
8. Holmannova D *et al.* (2015) Inhibitory CD200R and proapoptotic CD95/CD95L molecules on innate immunity cells are modulated by cardiac surgery. [Perfusion. 30 \(7\): 543-55.](#)
9. Tomchuck, S.L. *et al.* (2015) Enhanced cytotoxic function of natural killer and CD3+CD56+ cells in cord blood after culture. [Biol Blood Marrow Transplant. 21 \(1\): 39-49.](#)
10. Pachnio, A. *et al.* (2016) Cytomegalovirus Infection Leads to Development of High Frequencies of Cytotoxic Virus-Specific CD4+ T Cells Targeted to Vascular Endothelium. [PLoS Pathog. 12 \(9\): e1005832.](#)
11. Fathalla, A.M. *et al.* (2020) Polymyxin-Induced Cell Death of Human Macrophage-Like THP-1 and Neutrophil-Like HL-60 Cells Associated with the Activation of Apoptotic Pathways. [Antimicrob Agents Chemother. 64 \(9\)Aug 20 \[Epub ahead of print\].](#)

Storage	<p>This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.</p> <p>Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended. This product is photosensitive and should be protected from light.</p>
Guarantee	12 months from date of despatch
Acknowledgements	<p>This product is provided under an intellectual property licence from Life Technologies Corporation. The transfer of this product is contingent on the buyer using the purchase product solely in research, excluding contract research or any fee for service research, and the buyer must not sell or otherwise transfer this product or its components for (a) diagnostic, therapeutic or prophylactic purposes; (b) testing, analysis or screening services, or information in return for compensation on a per-test basis; (c) manufacturing or quality assurance or quality control, or (d) resale, whether or not resold for use in research. For information on purchasing a license to this product for purposes other than as described above, contact Life Technologies Corporation, 5791 Van Allen Way, Carlsbad CA 92008 USA or outlicensing@thermofisher.com</p>
Health And Safety Information	<p>Material Safety Datasheet documentation #10041 available at: https://www.bio-rad-antibodies.com/SDS/MCA2409A647</p> <p>10041</p>
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:Alexa Fluor® 647 \(MCA928A647\)](#)

Recommended Useful Reagents

[HUMAN SEROBLOCK \(BUF070A\)](#)
[HUMAN SEROBLOCK \(BUF070B\)](#)

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com	Worldwide	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com	Europe	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com
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To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
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