

Datasheet: MCA2806SBR670

## **BATCH NUMBER 100008016**

Description:	MOUSE ANTI HUMAN CD69:StarBright Red 670
Specificity:	CD69
Other names:	AIM
Format:	StarBright Red 670
<b>Product Type:</b>	Monoclonal Antibody
Clone:	FN50
Isotype:	IgG1
Quantity:	100 TESTS/0.5ml

## **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 <a href="www.bio-rad-antibodies.com/protocols">www.bio-rad-antibodies.com/protocols</a>.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	-			Neat

Where this product 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 product for use in their own system using appropriate negative/positive controls.

<b>Species Cross</b>
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Reactivity
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**Target Species** 

Human

Reacts with: Baboon, Chimpanzee, Cynomolgus monkey, Rhesus Monkey, Macaque **N.B.** Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

Purified IgG conjugated to StarBright Red 670 - liquid

	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	StarBright Red 670	653	666

### Preparation

Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant

Buffer Solution	Phosphate buffered saline
Preservative	0.09% Sodium Azide (NaN <sub>3</sub> )
Stabilisers	1% Bovine Serum Albumin
	0.1% Pluronic F68
	0.1% PEG 3350
	0.05% Tween 20
Immunogen	Activated human B-cells.
External Database Links	UniProt:
	Q07108 Related reagents
	Entrez Gene:
	969 CD69 Related reagents
Synonyms	CLEC2C
0 151 . 14	

# Specificity

Mouse anti Human CD69 antibody, clone FN50 recognizes the human early activation antigen CD69, also known as activation inducer molecule (AIM), Early T-cell activation antigen p60, EA1 or MLR-3. CD69 is a 199 amino acid single pass type II transmembrane glycoprotein of ~30 kDa containing a single C-type lectin domain and a single potential N-glycosylation site. CD69 is expressed as a disulphide bond linked homodimer of ~60 kDa (López-Cabrera et al. 1993).

CD69 is a marker of early activation expressed by B and T lymphocytes, natural killer cells(Werfel 1997), neutrophils, thymocytes and platelets (Gaviol et al. 1992). Expression of CD69 is rapidly induced on activation by infection or chronic inflamation (Sancho et al. 2005). Multiple dimeric glycoforms of CD69 can be formed through differential glycosylation of the monomeric subunits (Vance et al. 1997).

Mouse anti Human CD69, clone FN50 is useful for the detection of CD69 by flow cytometry and immunohistochemistry on frozen tissue sections.

#### Flow Cytometry

Use  $5\mu$ I of the suggested working dilution to label  $10^6$  cells in  $100\mu$ I. Best practices suggest a 5 minutes centrifugation at 6,000g prior to sample application.

#### References

- 1. Holte, H. *et al.* (1989) Ki67 and 4F2 antigen expression as well as DNA synthesis predict survival at relapse/tumour progression in low-grade B-cell lymphoma. <u>Int J Cancer.</u> 44 (6): 975-80.
- 2. Herberth, M. *et al.* (2010) Differential effects on T-cell function following exposure to serum from schizophrenia smokers. Mol Psychiatry. 15 (4): 364-71.
- 3. Schaeuble, K. *et al.* (2011) Cross-talk between TCR and CCR7 signaling sets a temporal threshold for enhanced T lymphocyte migration. <u>J Immunol</u>. 187 (11): 5645-52.
- 4. Sela, M. *et al.* (2011) Sequential phosphorylation of SLP-76 at tyrosine 173 is required for activation of T and mast cells. <u>EMBO J. 30 (15): 3160-72</u>.
- 5. Garbe, Y. et al. (2011) Semiallogenic fusions of MSI(+) tumor cells and activated B cells

induce MSI-specific T cell responses. BMC Cancer. 11: 410.

- 6. Schwitalle, Y. et al. (2004) Immunogenic peptides generated by frameshift mutations in DNA mismatch repair-deficient cancer cells. Cancer Immun. 4: 14.
- 7. Sutavani, R.V. et al. (2013) CD55 Costimulation Induces Differentiation of a Discrete T Regulatory Type 1 Cell Population with a Stable Phenotype. J Immunol. 191: 5895-903.
- 8. Walter, G.J. et al. (2013) Interaction with activated monocytes enhances cytokine expression and suppressive activity of human CD4+CD45ro+CD25+CD127(low) regulatory T cells. Arthritis Rheum. 65: 627-38.
- 9. Kuric, E. et al. (2017) Demonstration of Tissue Resident Memory CD8 T Cells in Insulitic Lesions in Adult Patients with Recent-Onset Type 1 Diabetes. Am J Pathol. 187
- 10. Karnell, F.G. et al. (2017) Reconstitution of immune cell populations in multiple sclerosis patients after autologous stem cell transplantation. Clin Exp Immunol. 189 (3):
- 11. Rossatti, P. et al. (2022) Rapid increase in transferrin receptor recycling promotes adhesion during T cell activation. BMC Biol. 20 (1): 189.

Storage	Store at +4°C. DO NOT FREEZE.
	This product should be stored undiluted.
Guarantee	12 months from date of despatch
Acknowledgements	This product is covered by U.S. Patent No. 10,150,841 and related U.S. and foreign counterparts
Health And Safety	Material Safety Datasheet documentation #20471 available at:
Information	https://www.bio-rad-antibodies.com/SDS/MCA2806SBR670
	20471
Regulatory	For research purposes only

# Related Products

## **Recommended Useful Reagents**

**HUMAN SEROBLOCK (BUF070A) HUMAN SEROBLOCK (BUF070B)** 

North & South Tel: +1 800 265 7376 America

Worldwide

Tel: +44 (0)1865 852 700

Tel: +49 (0) 89 8090 95 21 Europe

Fax: +1 919 878 3751

Fax: +44 (0)1865 852 739

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Email: antibody\_sales\_us@bio-rad.com

Email: antibody\_sales\_uk@bio-rad.com

Email: antibody\_sales\_de@bio-rad.com

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets 'M419806:230619'

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