

## Datasheet: MCA2806SBUV540

<b>Description:</b>	MOUSE ANTI HUMAN CD69:StarBright UltraViolet 540
<b>Specificity:</b>	CD69
<b>Other names:</b>	AIM
<b>Format:</b>	StarBright UltraViolet 540
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	FN50
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	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 [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

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

**(1)Expression of CD69 may be induced *in vitro* through pre-treatment of cells with phytohemagglutinin (PHA), lipopolysaccharide (LPS), or Phorbol 12-myristate 13-acetate (PMA) with Ionomycin.**

#### Target Species

Human

#### Species Cross Reactivity

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.

#### Product Form

Purified IgG conjugated to StarBright UltraViolet 540 - liquid

Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	StarBright UltraViolet 540	338	540

<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.09% Sodium Azide (NaN <sub>3</sub> ) 1% Bovine Serum Albumin 0.1% Pluronic F68 0.1% PEG 3350 0.05% Tween 20
<b>Approx. Protein Concentrations</b>	For information on the concentration of our StarBright Dye conjugated reagents please visit our <a href="#">FAQ</a> page.
<b>Immunogen</b>	Activated human B-cells.
<b>External Database Links</b>	<b>UniProt:</b> <a href="#">Q07108</a> <a href="#">Related reagents</a>  <b>Entrez Gene:</b> <a href="#">969</a> CD69 <a href="#">Related reagents</a>
<b>Synonyms</b>	CLEC2C
<b>Specificity</b>	<p><b>Mouse anti Human CD69 antibody, clone FN50</b> 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 <a href="#">C-type lectin domain</a> and a single potential <a href="#">N-glycosylation site</a>. CD69 is expressed as a disulphide bond linked homodimer of ~60 kDa (<a href="#">López-Cabrera et al. 1993</a>).</p> <p>CD69 is a marker of early activation expressed by B and T lymphocytes, natural killer cells(<a href="#">Werfel 1997</a>), neutrophils, thymocytes and platelets (<a href="#">Gaviol et al. 1992</a>). Expression of CD69 is rapidly induced on activation by infection or chronic inflammation (<a href="#">Sancho et al. 2005</a>). Multiple dimeric glycoforms of CD69 can be formed through differential glycosylation of the monomeric subunits (<a href="#">Vance et al. 1997</a>).</p> <p>Mouse anti Human CD69 , clone FN50 is useful for the detection of CD69 by flow cytometry and immunohistochemistry on frozen tissue sections.</p>
<b>Flow Cytometry</b>	Use 5µl of the suggested working dilution to label 0.5x10 <sup>6</sup> cells in 100µl. Best practices suggest a 5 min centrifugation at 6,000g prior to sample application.
<b>References</b>	1. Holte, H. <i>et al.</i> (1989) Ki67 and 4F2 antigen expression as well as DNA synthesis predict survival at relapse/tumour progression in low-grade B-cell lymphoma. <a href="#">Int J Cancer. 44 (6): 975-80.</a> 2. Herberth, M. <i>et al.</i> (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. [J Immunol. 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. [EMBO J. 30 \(15\): 3160-72.](#)
  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 Insulinitic Lesions in Adult Patients with Recent-Onset Type 1 Diabetes. [Am J Pathol. 187 \(3\): 581-8.](#)
  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 \(3\): 268-278.](#)
  11. Rossatti, P. *et al.* (2022) Rapid increase in transferrin receptor recycling promotes adhesion during T cell activation. [BMC Biol. 20 \(1\): 189.](#)

<b>Storage</b>	Store at +4°C. DO NOT FREEZE. This product should be stored undiluted.
<b>Guarantee</b>	12 months from date of despatch
<b>Acknowledgements</b>	This product is covered by U.S. Patent No. 10,150,841 and related U.S. and foreign counterparts
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #20471 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA2806SBUV540">https://www.bio-rad-antibodies.com/SDS/MCA2806SBUV540</a>
<b>Regulatory</b>	For research purposes only

## Related Products

### Recommended Useful Reagents

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

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

**Product inquiries:** [www.bio-rad-antibodies.com/technical-support](http://www.bio-rad-antibodies.com/technical-support)

To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](http://bio-rad-antibodies.com/datasheets)

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