Datasheet: MCA2806SBUV445

BATCH NUMBER 64749214

Description:	MOUSE ANTI HUMAN CD69:StarBright UltraViolet 445
Specificity:	CD69
Other names:	AIM
Format:	StarBright UltraViolet 445
Product Type:	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 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 445 - liquid

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
StarBright UltraViolet 445	347	440

Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide (NaN_3) 1% Bovine Serum Albumin 0.1% Pluronic F68 0.1% PEG 3350 0.05% Tween 20
Approx. Protein Concentrations	For information on the concentration of our StarBright Dye conjugated reagents please visit our FAQ page.
Immunogen	Activated human B-cells.
External Database Links	**UniProt:** Q07108 Related reagents **Entrez Gene:** 969 CD69 Related reagents
Synonyms	CLEC2C
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 5µl of the suggested working dilution to label $0.5x10^6$ cells in 100µl. Best practices suggest a 5 min 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. Int J Cancer. 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.
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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.
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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 (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.

Storage	This product is shipped at ambient temperature. 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 Information	Material Safety Datasheet documentation #20471 available at: https://www.bio-rad-antibodies.com/SDS/MCA2806SBUV445
Regulatory	For research purposes only

Related Products

Recommended Useful Reagents

HUMAN SEROBLOCK (BUF070A)
HUMAN SEROBLOCK (BUF070B)

Product inquiries: 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
'M449631:260129'

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