

Datasheet: MCA2782F

Description:	RAT ANTI MOUSE Ly-6A/E:FITC
Specificity:	Ly-6A/E
Other names:	Sca-1
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	D7
Isotype:	IgG2a
Quantity:	0.1 mg

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	▪			1/5 - 1/10
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting			▪	

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.

Target Species	Mouse						
Product Form	Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid						
Max Ex/Em	<table border="1"> <thead> <tr> <th>Fluorophore</th> <th>Excitation Max (nm)</th> <th>Emission Max (nm)</th> </tr> </thead> <tbody> <tr> <td>FITC</td> <td>490</td> <td>525</td> </tr> </tbody> </table>	Fluorophore	Excitation Max (nm)	Emission Max (nm)	FITC	490	525
Fluorophore	Excitation Max (nm)	Emission Max (nm)					
FITC	490	525					
Preparation	Purified IgG prepared from ascites or tissue culture supernatant						
Buffer Solution	Phosphate buffered saline						
Preservative Stabilisers	0.09% Sodium Azide						
Approx. Protein Concentrations	IgG concentration 0.5mg/ml						
Immunogen	IL-2-dependent mouse T cell line CTL-L.						

**External Database
Links**

UniProt:

[P05533](#) [Related reagents](#)

Entrez Gene:

[110454](#) Ly6a [Related reagents](#)

Synonyms

Ly6

Specificity

Rat anti Mouse Ly-6A/E antibody, clone D7 recognises members of the lymphocyte activation protein-6 (Ly-6) multigene family. Specifically, it recognises Ly-6A.2 and Ly-6E.1. Ly-6A/E is also known as stem cell antigen-1 (Sca-1). It is an 18kDa mouse glycosyl phosphatidylinositol-anchored cell surface protein of the Ly-6 gene family. It is expressed on multipotent hematopoietic stem cells in bone marrow of mice with both the Ly-6.1 and Ly-6.2 allotypes. As such, it is the most common marker used for enriching adult hematopoietic stem cells. It has varied functions, it plays a role in bone formation, myoblast proliferation and differentiation and the activation and immunosuppressive function of T cells.

Rat anti Mouse Ly-6A/E antibody, clone D7 has been reported to induce T cell activation. Removal of Sodium Azide is recommended prior to use in functional assays. Bio-Rad recommend the use of [EQU003](#) for this purpose.

Flow Cytometry

Use 10ul of the suggested working dilution to label 1×10^6 cells in 100ul.

The Fc region of monoclonal antibodies may bind non-specifically to cells expressing low affinity Fc receptors. This may be reduced by using SeroBlock FcR ([BUF041A/B](#)).

References

1. Holmes, C. & Stanford, W.L. (2007) Concise review: stem cell antigen-1: expression, function, and enigma. [Stem Cells. 25 \(6\): 1339-47.](#)
2. Ortega, G. *et al.* (1986) Role of Ly-6 in lymphocyte activation. I. Characterization of a monoclonal antibody to a nonpolymorphic Ly-6 specificity. [J Immunol. 137 \(10\): 3240-6.](#)
3. Malek, T.R. *et al.* (1986) Role of Ly-6 in lymphocyte activation. II. Induction of T cell activation by monoclonal anti-Ly-6 antibodies. [J Exp Med. 164 \(3\): 709-22.](#)
4. Codias, E.K. *et al.* (1990) Down-regulation of IL-2 production by activation of T cells through Ly-6A/E. [J Immunol. 145 \(5\): 1407-14.](#)
5. Snapper, C.M. *et al.* (1991) Cross-linkage of Ly-6A/E induces Ca^{2+} translocation in the absence of phosphatidylinositol turnover and mediates proliferation of normal murine B lymphocytes. [J Immunol. 147 \(4\): 1171-9.](#)

Storage

Store at +4°C or at -20°C if preferred.

Storage in frost-free freezers is not recommended.

This product should be stored undiluted. This product is photosensitive and should be protected from light. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Shelf Life

18 months from date of despatch.

**Health And Safety
Information**

Material Safety Datasheet documentation #10040 available at:
10040: <https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

Regulatory

For research purposes only

Related Products

Recommended Negative Controls

[RAT IgG2a NEGATIVE CONTROL:FITC \(MCA1212F\)](#)

Recommended Useful Reagents

[MOUSE SEROBLOCK FcR \(BUF041A\)](#)

[MOUSE SEROBLOCK FcR \(BUF041B\)](#)

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