

## Datasheet: MCA2782

<b>Description:</b>	RAT ANTI MOUSE Ly-6A/E
<b>Specificity:</b>	Ly-6A/E
<b>Other names:</b>	Sca-1
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	D7
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	0.25 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](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			
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.

<b>Target Species</b>	Mouse
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared from ascites or tissue culture supernatant
<b>Buffer Solution</b>	Borate buffered saline
<b>Preservative Stabilisers</b>	<0.1% Sodium Azide (NaN <sub>3</sub> )
<b>Approx. Protein Concentrations</b>	IgG concentration 0.5mg/ml

<b>Immunogen</b>	IL-2-dependent mouse T cell line CTL-L.
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P05533</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">110454</a>    Ly6a    <a href="#">Related reagents</a></p>
<b>Synonyms</b>	Ly6
<b>RRID</b>	AB_1102736
<b>Specificity</b>	<p><b>Rat anti Mouse Ly-6A/E antibody, clone D7</b> recognizes members of the lymphocyte activation protein-6 (Ly-6) multi-gene family. Specifically, it recognizes 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.</p> <p>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.</p>
<b>References</b>	<ol style="list-style-type: none"> <li>Ortega, G. <i>et al.</i> (1986) Role of Ly-6 in lymphocyte activation. I. Characterization of a monoclonal antibody to a nonpolymorphic Ly-6 specificity. <a href="#">J Immunol. 137 (10): 3240-6.</a></li> <li>Malek, T.R. <i>et al.</i> (1986) Role of Ly-6 in lymphocyte activation. II. Induction of T cell activation by monoclonal anti-Ly-6 antibodies. <a href="#">J Exp Med. 164 (3): 709-22.</a></li> <li>Codias, E.K. <i>et al.</i> (1990) Down-regulation of IL-2 production by activation of T cells through Ly-6A/E. <a href="#">J Immunol. 145 (5): 1407-14.</a></li> <li>Snapper, C.M. <i>et al.</i> (1991) Cross-linkage of Ly-6A/E induces Ca<sup>2+</sup> translocation in the absence of phosphatidylinositol turnover and mediates proliferation of normal murine B lymphocytes. <a href="#">J Immunol. 147 (4): 1171-9.</a></li> </ol>
<b>Further Reading</b>	<ol style="list-style-type: none"> <li>Holmes, C. &amp; Stanford, W.L. (2007) Concise review: stem cell antigen-1: expression, function, and enigma. <a href="#">Stem Cells. 25 (6): 1339-47.</a></li> </ol>
<b>Storage</b>	<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.</p>
<b>Guarantee</b>	12 months from date of despatch

**Health And Safety Information** Material Safety Datasheet documentation #10077 available at:  
<https://www.bio-rad-antibodies.com/SDS/MCA2782>  
10077

---

**Regulatory** For research purposes only

---

## Related Products

### Recommended Secondary Antibodies

Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)	<a href="#">DyLight@550</a> , <a href="#">DyLight@650</a> , <a href="#">DyLight@800</a>
Rabbit Anti Rat IgG (STAR21...)	<a href="#">HRP</a>
Rabbit Anti Rat IgG (STAR16...)	<a href="#">DyLight@800</a>
Goat Anti Rat IgG (STAR131...)	<a href="#">Alk. Phos.</a> , <a href="#">Biotin</a>
Rabbit Anti Rat IgG (STAR17...)	<a href="#">FITC</a>
Goat Anti Rat IgG (STAR72...)	<a href="#">HRP</a>
Goat Anti Rat IgG (STAR69...)	<a href="#">FITC</a>
Goat Anti Rat IgG (STAR73...)	<a href="#">RPE</a>

### Recommended Negative Controls

[RAT IgG2a NEGATIVE CONTROL \(MCA1212\)](#)

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
----------------------------------	---	------------------	---	---------------	---

To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://www.bio-rad-antibodies.com/datasheets)  
'M392048:211020'

Printed on 24 Feb 2025

---

© 2025 Bio-Rad Laboratories Inc | [Legal](#) | [Imprint](#)