

## CD49e Rat Anti-Mouse Monoclonal Antibody (clone 5H10.27), Biotin Conjugate

Store at 2°C to 8°C

Pub. No. MAN0008010 Rev. 1.00

Catalog No.	Form	Amount	Excitation	Peak Emission
A15402	Biotin	0.5 mg	—	—

### Product Description

The CD49e antigen (integrin  $\alpha 5$  subunit), in association with CD29 (integrin  $\beta 1$  subunit) make up one of the very late antigen receptors. It is expressed on thymocytes, activated T cells, mast cells, and a variety of mouse cell lines. The CD49e Rat Anti-Mouse Monoclonal Antibody (mAb) recognizes the  $\alpha 5$  chain (VLA-5) of the CD49e/CD29 heterodimer.<sup>1-5</sup> The soluble mAb inhibits VLA-5-mediated functions *in vitro*,<sup>1-4,6</sup> while the immobilized mAb can co-stimulate the proliferative response of CD8<sup>+</sup> T cells to plate-bound anti-CD3 mAb.<sup>3</sup>

### Product Specifications

<b>Clonality:</b>	Monoclonal
<b>Host/Class:</b>	Rat (Lewis) IgG
<b>Reactivity:</b>	Mouse CD49e/VLA-5
<b>Immunogen:</b>	C57BL/6 x A/J F1 mouse mast cell line MC/9 1
<b>Sequence Identity:</b>	Mouse
<b>Clone/PAD:</b>	5H10.27
<b>Isotype:</b>	IgG <sub>2ak</sub>
<b>Lot:</b>	See product label

### Product Applications

Applications reported for the CD49e Rat Anti-Mouse mAb include flow cytometry,<sup>1</sup> *in vitro* blocking of adhesion,<sup>1-4,6</sup> immunohistochemistry (frozen sections)<sup>7</sup>, and T-cell co-stimulation.<sup>3</sup>

Because conditions may vary, it is recommended that each investigator determine the optimal amount of antibody to be used for each application.

### Storage and Handling

Store reagents at 2°C to 8°C. If the reagent is being diluted, it is recommended that only the quantity to be used within one week be diluted. Cells should be analyzed within 18 hours of staining for best results.

Avoid light exposure with fluorochrome-conjugated antibodies. Use dim light during handling, incubation with cells, and prior to analysis.

### Stability

When stored as instructed, expires one year from date of receipt unless otherwise indicated on the Certificate of Analysis.

### Storage Buffer

Phosphate buffered saline (PBS) with 0.1% sodium azide.



**CAUTION!** Sodium azide is extremely toxic and may react with lead and copper plumbing to form highly explosive metal azides. Properly dispose of solutions containing sodium azide. Read the Safety Data Sheet (SDS) and follow the handling instructions. Wear appropriate protective eyewear, clothing, and gloves. SDSs are available at [www.lifetechnologies.com/support](http://www.lifetechnologies.com/support).

## References

1. Kinashi, T., and T.A. Springer. 1994. *Blood Cells* 20:25.
2. Halvorson, M.J., and J.E. Coligan. 1995. *J. Immunol.* 155:4567.
3. Rich, S., N. van Nood, and H.-M Lee. 1996. *J. Immunol.* 157:2916.
4. Uhlenkott, C.E., J.C. Huijzer, D.J. Carneiro, C.A. Elstad, and G.G. Meadows. 1996. *Clin. Exp. Metastasis* 14:125.
5. Hemler, M.E. 1990. *Annu. Rev. Immunol.* 8:365.
6. Schultz, J.F., and D.R. Armant. 1995. *J. Biol Chem.* 270:11522.
7. Southern Biotechnology Associates, Inc. Unpublished observations.

## Product Documentation

To obtain a Certificate of Analysis or Safety Data Sheets (SDSs), visit [www.lifetechnologies.com/support](http://www.lifetechnologies.com/support).








## Related Products

Product Name	Quantity	Cat. No.
AbC™ Anti-Mouse Bead Kit	1 kit	A10344
AbC™ Anti-Rat/Hamster Bead Kit	1 kit	A10389
FIX & PERM® Reagents (200 tests)	1 kit	GAS004
<b>LIVE/DEAD® Fixable Dead Cell Stain Kits</b>		
Blue (UV excitation)	1 kit (200 assays)	L23105
Violet (405 nm excitation)		L34955
Yellow (405 nm excitation)		L34959
Red (488 nm excitation)		L23102
Near-IR (633/635 nm excitation)		L10119

## Limited Product Warranty

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## Explanation of symbols

Symbol	Description	Symbol	Description	Symbol	Description
	Manufacturer		Catalog number		Batch code
	Use by		Temperature limitation		
	Consult instructions for use		Caution, consult accompanying documents		

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