

**AM08047LE-N****Monoclonal Antibody to CD49e / ITGA5 - Low Endotoxin**

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| <b>Alternate names:</b>              | CD49 antigen-like family member E, FNRA, Fibronectin receptor subunit alpha, Integrin alpha-5, Integrin alpha-F, VLA-5, VLA5                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Quantity:</b>                     | 0.5 mg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Concentration:</b>                | 0.5 mg/ml                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Background:</b>                   | Integrin alpha 5 belongs to the integrin alpha chain family. Integrins are heterodimeric integral membrane proteins composed of an alpha chain and a beta chain. This gene encodes the integrin alpha 5 chain. Alpha chain 5 undergoes post translational cleavage in the extracellular domain to yield disulfide linked light and heavy chains that join with beta 1 to form a fibronectin receptor. In addition to adhesion, integrins are known to participate in cell surface mediated signalling. It is expressed on thymocytes, activated T cells, mast cells, and a variety of mouse cell lines. |
| <b>Uniprot ID:</b>                   | <a href="#">P11688</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>NCBI:</b>                         | <a href="#">10090</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Host / Isotype:</b>               | Rat / IgG2a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Recommended Isotype Controls:</b> | SM26LE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Clone:</b>                        | 5H10-27                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Immunogen:</b>                    | C57BL/6 x A/J F1 mouse mast cell line MC/9. (Ref.1)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Format:</b>                       | <b>State:</b> Liquid purified Ig fraction.<br><b>Buffer System:</b> PBS containing no preservatives.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Applications:</b>                 | <b>Flow Cytometry.</b> (Ref.1)<br><b>Immunohistochemistry on Frozen Sections:</b> (Ref.7)<br><b>Functional Assays:</b><br><i>In vitro</i> blocking of adhesion. (Ref.1,2-4,6)<br>T-cell co-stimulation. (Ref.3)<br>Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.                                                                                                                                                                                                                                                                   |
| <b>Specificity:</b>                  | This antibody is specific to alpha-5 subunit of the integrin alpha-5 beta-1 Fibronectin Receptor.<br>It reacts with the alpha-5 chain (VLA-5) of the CD49e/CD29 heterodimeric Fibronectin Receptor. (Ref.1-5)<br>Soluble 5H10-27 antibody inhibits VLA-5-mediated functions in vitro. (Ref.1,2-4,6)<br>Immobilized 5H10-27 has also been demonstrated to co-stimulate the proliferative response of CD8+ T cells to plate-bound anti-CD3 monoclonal antibody. (Ref.3)<br><b>Species:</b> Mouse.<br>Other species not tested.                                                                            |

**Storage:**

Store the antibody undiluted (in aliquots) at -20°C.  
Avoid repeated freezing and thawing.  
Shelf life: one year from despatch.

**General Readings:**

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. Cardeiro, 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.