

## SM2210B

## Monoclonal Antibody to CD29 / Integrin beta-1 - Biotin

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Alternate names:</b> | FNRB, Fibronectin receptor subunit beta, ITGB1, Integrin VLA-4 subunit beta, MDF2, MSK12                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Quantity:</b>        | 0.1 mg                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Concentration:</b>   | 0.1 mg/ml                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Background:</b>      | CD29 is a 110KD cell surface glycoprotein that is widely expressed by a variety of cells including all leucocytes. CD29 forms non-covalent bonds with the integrin alpha subunits, including CD51 and CD49a-f, to form heterodimers. The ligands for these heterodimers include collagen, fibronectin, laminin and vascular adhesion molecule-1. In the immune system beta 1 integrins play an important role in cell adhesion, migration, activation and differentiation. |
| <b>Uniprot ID:</b>      | <a href="#">P09055</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>NCBI:</b>            | <a href="#">NP_034708.1</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>GeneID:</b>          | <a href="#">16412</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Host / Isotype:</b>  | Hamster / IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Clone:</b>           | HM beta 1.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Immunogen:</b>       | Purified mouse VLA-4 antigen.<br>Spleen cells from immunised Armenian hamsters were fused with cells of the P3U1 mouse myeloma cell line.                                                                                                                                                                                                                                                                                                                                  |
| <b>Format:</b>          | <b>State:</b> Liquid purified IgG fraction.<br><b>Purification:</b> Affinity Chromatography on Protein G.<br><b>Buffer System:</b> PBS, pH7.4 containing 0.09% Sodium Azide as preservative and 1% BSA as stabilizer.<br><b>Label:</b> Biotin                                                                                                                                                                                                                              |
| <b>Applications:</b>    | Flow Cytometry: Use 10 µl of the suggested working dilution to label 10e6 cells in 100 µl.<br>The Fc region of monoclonal antibodies may bind non-specifically to cells expressing low affinity fc receptors.<br>Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.                                                                                                                                        |
| <b>Specificity:</b>     | This antibody recognises the integrin beta 1 subunit (CD29).<br>Clone HM beta 1.1 is reported to inhibit beta 1 integrin mediated adhesion. We recommend the use of SM2210LE for this purpose.<br><b>Species:</b> Mouse and Rat.<br>Other species not tested.                                                                                                                                                                                                              |
| <b>Storage:</b>         | Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.<br>Avoid repeated freezing and thawing.<br>Shelf life: one year from despatch.                                                                                                                                                                                                                                                                                                   |

**General Readings:**

1. Noto K, Kato K, Okumura K, Yagita H. Identification and functional characterization of mouse CD29 with a mAb. *Int Immunol.* 1995 May;7(5):835-42. PubMed PMID: 7547709.