

## DESCRIPTION

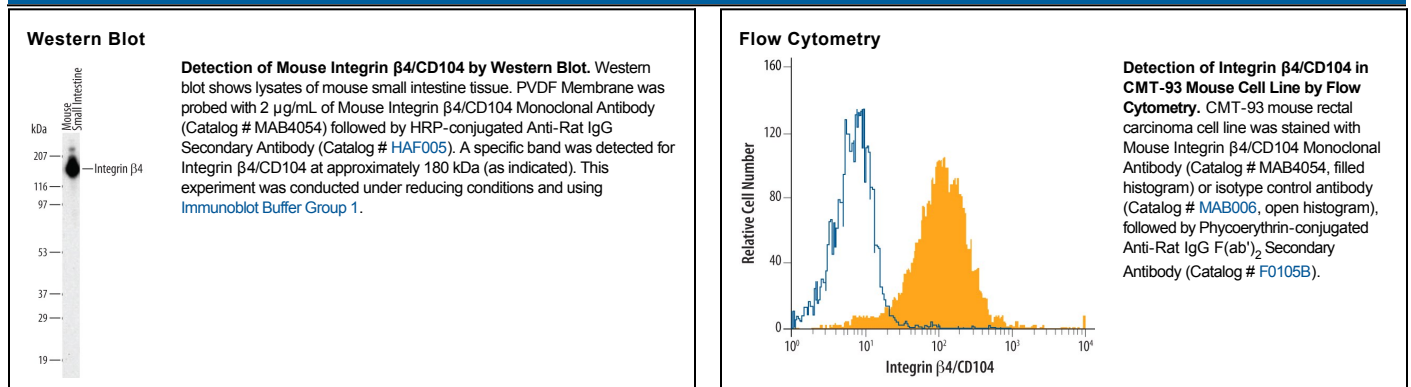
|                           |  |
|---------------------------|--|
| <b>Species Reactivity</b> | Mouse  |
| <b>Specificity</b>        | Detects mouse Integrin $\beta 4$ /CD104 in direct ELISAs and Western blots. Does not cross-react with recombinant mouse Integrin $\beta 1$ , $\beta 2$ , $\beta 6$ , $\beta 7$ , or recombinant human Integrin $\beta 3$ . |
| <b>Source</b>             | Monoclonal Rat IgG <sub>2A</sub> Clone # 308601  |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant   |
| <b>Immunogen</b>          | Chinese hamster ovary cell line CHO-derived recombinant mouse Integrin $\beta 4$ /CD104<br>Asn29-Ser711<br>Accession # NP_001005608  |
| <b>Formulation</b>        | Lyophilized from a 0.2 $\mu$ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details.<br>*Small pack size (-SP) is supplied as a 0.2 $\mu$ m filtered solution in PBS.                          |

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

|                             | Recommended Concentration  | Sample  |
|-----------------------------|--|---|
| <b>Western Blot</b>         | 2 $\mu$ g/mL   | See Below   |
| <b>Flow Cytometry</b>       | 2.5 $\mu$ g/10 <sup>6</sup> cells  | See Below   |
| <b>Immunohistochemistry</b> | 8-25 $\mu$ g/mL  | Perfusion fixed frozen sections of mouse intestinal villi |
| <b>CyTOF-ready</b>          | Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation. |   |

## DATA



## PREPARATION AND STORAGE

|                                |  |
|--------------------------------|--|
| <b>Reconstitution</b>          | Reconstitute at 0.5 mg/mL in sterile PBS.  |
| <b>Shipping</b>                | The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.<br>*Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C   |
| <b>Stability &amp; Storage</b> | <b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul> |

## BACKGROUND

Integrin  $\beta 4$ , also known as CD104, is a 200 kDa type I transmembrane (TM) glycoprotein that associates only with Integrin  $\alpha 6$ /CD29. Integrin  $\alpha 6\beta 4$  is predominantly expressed by epithelial cells, binds laminins, and is essential for formation of hemidesmosomes and connection of the dermis to the epidermis. Mouse integrin  $\beta 4$  contains a 680 amino acid (aa) extracellular domain (ECD) with a metal-binding site and four cysteine-rich repeats, a 22 aa TM segment and an unusually long 1073 aa cytoplasmic tail that organizes hemidesmosome components. Isoforms with shortened cytoplasmic tails have been described. Mouse and human  $\beta 4$  ECD show 88% aa identity.