

## Product datasheet for **SM017P**

### **Itgb2 Rat Monoclonal Antibody [Clone ID: C71/16]**

#### **Product data:**

<b>Product Type:</b>	Primary Antibodies
<b>Clone Name:</b>	C71/16
<b>Applications:</b>	FC, IHC
<b>Recommended Dilution:</b>	IHC on acetone-fixed frozen sections. Immunoprecipitation. Flow cytometry (please see protocol for details).
<b>Reactivity:</b>	Mouse
<b>Host:</b>	Rat
<b>Isotype:</b>	IgG2a
<b>Clonality:</b>	Monoclonal
<b>Immunogen:</b>	Cell membrane glycoproteins derived from BW5147 cells (1)
<b>Specificity:</b>	This antibody is specific for the common $\beta$ 2subunit of LFA-1 (CD11a/CD18), MAC-1 (CD11b/CD18) and P150,95 (CD11c/CD18) (2,3). These three $\beta$ 2 integrins, which function in cell-cell adhesion in the immune system, are also known as leukocyte integrins because their expression is limited to leukocytes (2,3).
<b>Formulation:</b>	PBS and 0.02% sodium azide (NaN <sub>3</sub> ) State: Purified State: Liquid purified Ig fraction
<b>Concentration:</b>	lot specific
<b>Conjugation:</b>	Unconjugated
<b>Storage:</b>	Store the antibody at 2 - 8 °C up to one month or (in aliquots) at -20 °C for longer. Avoid repeated freezing and thawing.
<b>Stability:</b>	Shelf life: one year from despatch.
<b>Gene Name:</b>	integrin beta 2
<b>Database Link:</b>	<a href="#">Entrez Gene 16414 Mouse P11835</a>



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**Background:** CD18 is an integrin. Integrins are integral cell surface proteins composed of an alpha chain and a beta chain. A given chain may combine with multiple partners resulting in different integrins. For example, beta 2 combines with the alpha L chain to form the integrin LFA1, and combines with the alpha M chain to form the integrin Mac1. Integrins are known to participate in cell adhesion as well as cell surface mediated signalling. CD18 is expressed by most leucocytes. Defects in the CD18 gene result in leukocyte adhesion deficiency.

**Synonyms:** Integrin beta-2, MFI7

**Note:** Protocol: FLOW CYTOMETRY ANALYSIS:

**Method:**

1. Prepare a cell suspension in media A. For cell preparations, deplete the red blood cell population.
2. Wash 2 times.
3. Resuspend the cells to a concentration of  $2 \times 10^7$  cells/ml in media A. Add 50  $\mu$ l of this suspension to each tube (each tube will then contain  $1 \times 10^6$  cells, representing 1 test).
4. To each tube, add 1.0  $\mu$ g of antibody.
5. Vortex the tubes to ensure thorough mixing of antibody and cells.
6. Incubate the tubes for 30 minutes at 4°C.
7. Wash 2 times at 4°C.
8. Add 100  $\mu$ l of secondary antibody (FITC Goat anti-rat IgG (H+L)) at 1:500 dilution.
9. Incubate the tubes at 4°C for 30-60 minutes. (It is recommended that the tubes are protected from light since most fluorochromes are light sensitive).
10. Wash 2 times at 4°C in media B.
11. Resuspend the cell pellet in 50  $\mu$ l ice cold media B.
12. Transfer to suitable tubes for flow cytometric analysis containing 15  $\mu$ l of propidium iodide at 0.5 mg/ml in PBS. This stains dead cells by intercalating in DNA.

**Media:**

- A. Phosphate buffered saline (pH 7.2) + 5% normal serum of host species + sodium azide (100  $\mu$ l of 2M sodium azide in 100 mls).
- B. Phosphate buffered saline (pH 7.2) + 0.5% Bovine serum albumin + sodium azide (100  $\mu$ l of 2M sodium azide in 100 mls).