SONY

Product Data Sheet

PE anti-mouse/rat CD49e

Catalog # / Size: 1119530 / 200 µg
1119525 / 50 µg

Clone: HMα5-1

Isotype: Hamster IgG

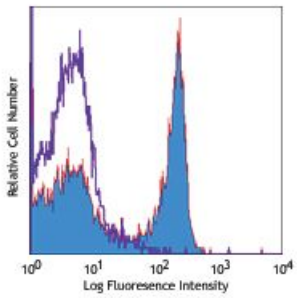
Immunogen: Affinity-purified mouse VLA-5 protein ($\alpha_5\beta_1$, CD49e/CD29)

Reactivity: Mouse, Rat

Preparation: The antibody was purified by affinity chromatography, and conjugated with PE under optimal conditions.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

Concentration: 0.2



C57BL/6 mouse bone marrow cells stained with HMα5-1 PE

Applications:

Applications: Flow Cytometry

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is ≤ 0.25 µg per 10^6 cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.

Application Notes: The HMα5-1 antibody has been shown to partially block CD49e mediated interactions. It has also been observed that plate-bound HMα5-1 antibody enhances IgE mediated degranulation and that *in vivo* injection of HMα5-1 antibody, in combination with anti-CD49d and anti-CD61 antibodies, blocks passive cutaneous anaphylaxis.

Additional reported applications (for the relevant formats) include: immunoprecipitation[1], *in vivo* inhibition of fibronectin receptor (VLA-5) functions and *in vitro* blocking of CD49e mediated interactions [1,2].

Application References:

1. Yasuda M, *et al.* 1995. *Int. Immunol.* 7:251. (IP, Block)
2. Noto K, *et al.* 1995. *Int. Immunol.* 7:835. (Block)
3. Lin JS, *et al.* 2010. *J. Leukoc. Biol.* 88:95. PubMed

Description: CD49e is a 135 kD protein, also known as α_5 integrin or VLA-5 α chain. It is a member of the integrin family, expressed on thymocytes, splenic B cells, activated T cells, and mast cells. CD49e associates with CD29 (integrin β_1 chain) to form the fibronectin receptor (VLA-5). CD49e plays a critical role in both adhesion and T cell costimulation. The primary ligand for CD49e/CD29 (VLA-5) is fibronectin.

Antigen References:

1. Barclay AN, *et al.* 1997. The Leukocyte Antigen FactsBook Academic Press.
2. Kinashi T, *et al.* 1994 *Blood Cells* 20:25.
3. Hemler ME. 1990. *Annu. Rev. Immunol.* 8:365.

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