

## Technical Data Sheet

### iF647 Anti-Mouse CD49b (pan-NK )

**Catalog Number:** 202702, 202703**Size:** 25 tests, 100 tests**Target Name:** CD49b, Integrin alpha 2 chain, ITGA2**Regulatory Status:** RUO

#### Product Details

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**Clone:** DX5\_R**Application:** FC**Reactivity:** Mouse**Format:** iF647**Isotype:** Mouse IgG2a IgM like**Antibody Type:** Monoclonal**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA**Protein Concentration:** Supplied at a lot-specific concentration.**Storage&Handling:** The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.**Recommended Usage:** For flow cytometric staining, it is recommended to use 5 µL of this reagent per 0.5-1.0 million cells in a 100 µL volume. Optimal reagent performance should be determined by titration for each specific application.**Excitation Laser:** Red Laser (633 nm)**Release Date:** Dec-25

#### Background Information

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CD49b is a 150 kD glycoprotein, also known as  $\alpha 2$  integrin, VLA-2  $\alpha$  chain, Integrin  $\alpha 2$  chain, and HM $\alpha 2$ . It is a member of the integrin family, expressed on NK cells, a subset of splenic CD4<sup>+</sup> T cells, NK-T cells, intestinal intraepithelial and lamina propria lymphocytes, epithelial cells, and platelets. By associating with CD29 (integrin  $\beta 1$  subunit), CD49b forms the VLA-2 (integrin  $\alpha 2\beta 1$ ) complex. It plays a critical role in both adhesion and lymphocyte activation. The primary ligands for CD49b are collagen, laminin, and fibronectin. The HM $\alpha 2$  antibody has been shown to be useful for partially blocking CD49b mediated interactions with collagen. Additionally, this antibody blocks staining of splenic NK cells by the monoclonal antibody DX5. This recombinant DX5-R antibody was produced by cloning its VH region into a mouse IgM-like backbone constructed from a mouse IgG2a-based framework.