

## Technical Data Sheet

### iF647 Anti-Human CD57

**Catalog Number:** 110502, 110503  
**Size:** 25 tests, 100 tests  
**Target Name:** CD57, HNK-1, Leu-7, NK-1  
**Regulatory Status:** RUO

#### Product Details

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**Clone:** HNK-1  
**Application:** FC  
**Reactivity:** Human  
**Format:** iF647  
**Isotype:** Mouse IgM  
**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:** Nov-25

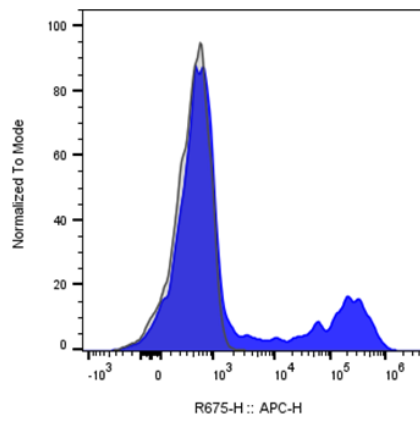
#### Background Information

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CD57 (HNK-1, NK-1, Leu-7) is a 100–115 kDa oligosaccharide antigen expressed on a variety of proteins, lipids, and chondroitin sulfate proteoglycans. It is found on terminally differentiated NK cells, CD8+ T cells, and a subset of peripheral blood lymphocytes, as well as on neural cells and striated muscle, but not on red blood cells, granulocytes, monocytes, or platelets. Although its precise function is unclear, CD57 can bind L-selectin, P-selectin, and laminin fragments, suggesting a role in cell–matrix interactions. CD57+ immune cells exhibit potent cytotoxicity but reduced proliferation and cytokine responsiveness. Clinically, CD57 expression is elevated in conditions with CD4/CD8 imbalances, including chronic viral infections, autoimmune diseases, AIDS, and post-transplant states, while low levels may be observed in conditions like Lyme disease.

#### Product Data

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Human peripheral blood lymphocytes stained either iF647 Anti-Human CD57 clone HNK-1 (color-filled histogram) or an isotype control (gray histogram).