

## Anti-Human CD56 Antibody, Clone HCD56, Alexa Fluor® 488

# Antibodies

Mouse monoclonal IgG1 antibody  
against human CD56, Alexa Fluor®  
488-conjugated

100 tests

Catalog #60021AD

Document #27449 | Version 1\_0\_0



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## Product Description

The HCD56 antibody reacts with CD56 (NCAM), a member of the immunoglobulin (Ig) super family containing 5 Ig-like domains and two fibronectin type-3 domains in its extracellular portion. Multiple isoforms have been identified, including transmembrane and GPI-anchored forms. CD56 is subject to several types of post-translational modification, including addition of a polysialic acid moiety to the 5th Ig-like domain. The ~140 kDa isoform of CD56 is considered the prototypic cell surface marker on human NK cells. Around 90% of the NK cells express CD56 at low density while ~10% express the protein at relatively high levels. CD56 is also variably expressed by a subset of NK-T cells in peripheral blood, neurons, muscle cells, some stem cells, and in vitro-cultured T cell clones. It is also expressed by several types of tumors, including myeloma, neuroblastoma and small cell lung carcinoma cells. CD56 mediates cell-cell and cell-matrix adhesion via homophilic and heterophilic interactions, respectively, and has been implicated in activating intracellular signaling pathways. CD56 plays important roles in neuronal development both during embryogenesis and in adults.

Target Antigen Name: CD56

Alternative Names: Leu-19, NKH1, N-CAM, NCAM-1

Gene ID: 4684

Species Reactivity: Human

Host Species: Mouse

Clonality: Monoclonal

Clone: HCD56

Isotype: IgG1, kappa

Immunogen: Full-length human CD56 protein

Conjugate: Alexa Fluor® 488

## Applications

Verified: FC

Reported: FC

Special Applications: This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Human CD56 Positive Selection Kit (Catalog #18055; partial blocking may be observed) and EasySep™ Human NK Cell Enrichment Kit (Catalog #19055).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; WB: Western blotting

## Properties

Size: 100 tests

Concentration: 5 µL/test

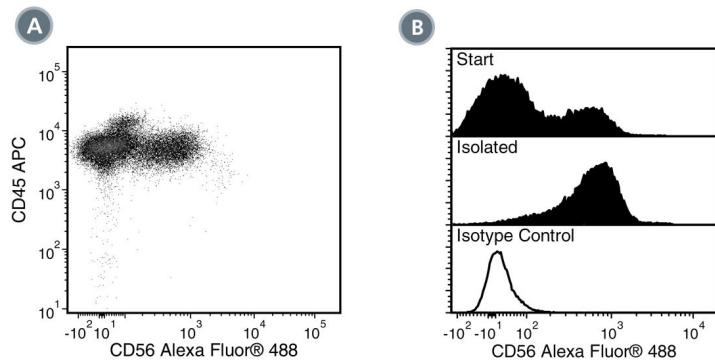
Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) bovine serum albumin

Purification: The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 488 under optimal conditions. The solution is free of unconjugated Alexa Fluor® 488.

Stability and Storage: Product stable at 2 - 8°C when stored undiluted. Do not freeze. Protect product from prolonged exposure to light. For product expiry date, please request a lot-specific Certificate of Analysis from [techsupport@stemcell.com](mailto:techsupport@stemcell.com).

Directions for Use: For flow cytometry the suggested use of this antibody is 5 µL per 1 x 10<sup>6</sup> cells in 100 µL volume or per 100 µL of whole blood. It is recommended that the antibody be titrated for optimal performance for each application.

# Data



(A) Flow cytometry analysis of human peripheral blood mononuclear cells (PBMCs) labeled with Anti-Human CD56 Antibody, Clone HCD56, Alexa Fluor® 488 and anti-human CD45 APC.

(B) Flow cytometry analysis of human PBMCs processed with the EasySep™ Human CD56 Positive Selection Kit and labeled with Anti-Human CD56 Antibody, Clone HCD56, Alexa Fluor® 488. Histograms show labeling of PBMCs (Start) and isolated cells (Isolated). Labeling of start cells with a mouse IgG1, kappa Alexa Fluor® 488 isotype control antibody is shown in the bottom panel (open histogram).

## Related Products

PRODUCT NAME	CATALOG #	SIZE
Anti-Human CD56 Antibody, Clone HCD56	60021	Coming soon
Anti-Human CD56 Antibody, Clone HCD56, Alexa Fluor® 488	60021AD	100 tests
Anti-Human CD56 Antibody, Clone HCD56, PE	60021PE	100 tests

## References

1. Lanier L, et al. Molecular and functional analysis of human natural killer cell-associated neural cell adhesion molecule (N-CAM/CD56). *J Immunol* 146(12): 4421-26, 1991
2. Cremer H, et al. Inactivation of the N-CAM gene in mice results in size reduction of the olfactory bulb and deficits in spatial learning. *Nature* 367(6462): 455-59, 1994
3. Barclay AN, et al. Eds. *The Leukocyte Antigens Facts Book*, 2nd Edition, CD56. Academic Press, NY, pp. 284-86, 1997
4. Kishimoto T, et al. Eds. *Leukocyte Typing VI. White Cell Differentiation Antigens*. Garland Publishing Inc, New York NY, pp. 1155-56, 1998
5. Hayakawa Y, et al. Functional subsets of mouse natural killer cells. *Immunol Rev* 214: 47-55, 2006

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