

Anti-Human CD56 (NCAM) Antibody, Clone HCD56, Biotin



Scientists Helping Scientists™ | WWW.STEMCELL.COM

TOLL FREE PHONE 1 800 667 0322 • PHONE +1 604 877 0713

INFO@STEMCELL.COM • TECHSUPPORT@STEMCELL.COM

FOR GLOBAL CONTACT DETAILS VISIT OUR WEBSITE

Antibodies

Mouse monoclonal IgG1 antibody
against human CD56 (NCAM),
biotin-conjugated

Catalog #60021BT
#60021BT.1

100 µg 0.5 mg/mL
25 µg 0.5 mg/mL

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 NKT 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 (NCAM)
Alternative Names:	Leu-19, N-CAM, NCAM-1, NKH1
Gene ID:	4684
Species Reactivity:	Human
Host Species:	Mouse
Clonality:	Monoclonal
Clone:	HCD56
Isotype:	IgG1, kappa
Immunogen:	Full-length human CD56 protein
Conjugate:	Biotin

Applications

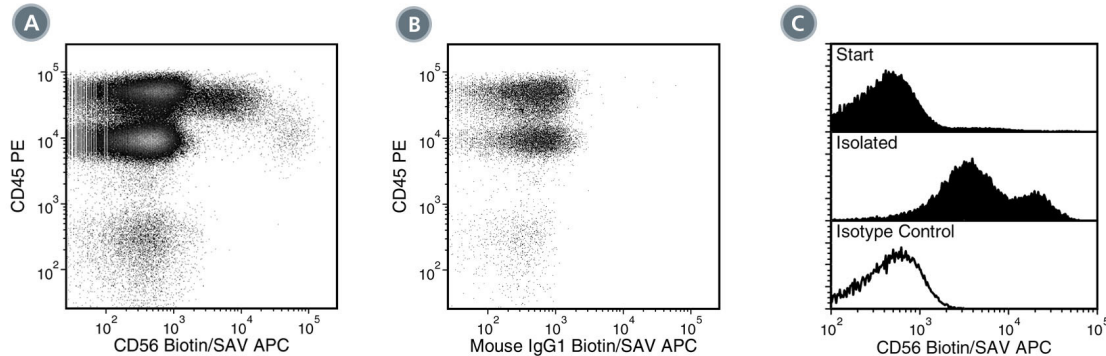
Verified:	FC
Reported:	FC
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ HLA Chimerism Buffy Coat CD56 Positive Selection Kit (Catalog #17875) and EasySep™ Human CD56 Positive Selection Kit II (Catalog #17855); partial blocking may be observed, as well as EasySep™ Human CD2 Positive Selection Kit II (Catalog #17883) 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; RIA: Radioimmunoassay; WB: Western blotting

Properties

Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide
Purification:	The antibody was purified by affinity chromatography and conjugated with biotin under optimal conditions. The solution is free of unconjugated biotin.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. For product expiry date, please contact techsupport@stemcell.com.
Directions for Use:	For flow cytometry, the suggested use of this antibody is $\leq 2 \mu\text{g}$ per 1×10^6 cells in 100 µL. It is recommended that the antibody be titrated for optimal performance for each application.

Data



(A) Flow cytometry analysis of human buffy coat nucleated cells labeled with Anti-Human CD56 Antibody, Clone HCD56, Biotin, followed by streptavidin (SAV) APC and Anti-Human CD45 Antibody, Clone HI30, PE (Catalog #60018PE).

(B) Flow cytometry analysis of human buffy coat nucleated cells labeled with a mouse IgG1, kappa biotin isotype control antibody, followed by SAV APC and Anti-Human CD45 Antibody, Clone HI30, PE.

(C) Flow cytometry analysis of human buffy coat nucleated cells processed with the EasySep™ HLA Buffy Coat CD56 Positive Selection Kit and labeled with Anti-Human CD56 Antibody, Clone HCD56, Biotin followed by SAV APC. Histograms show labeling of buffy coat nucleated cells (Start) and isolated cells (Isolated). Labeling of start cells with a mouse IgG1, kappa biotin isotype control antibody, followed by SAV APC is shown (solid line histogram).

Related Products

For a complete list of antibodies, including other conjugates, sizes and clones, as well as related products available from STEMCELL Technologies, visit www.stemcell.com/antibodies or contact us at techsupport@stemcell.com.

References

- Hayakawa Y et al. (2006) Functional subsets of mouse natural killer cells. *Immunol Rev* 214: 47–55.
- Kishimoto T et al. (Eds.). (1998) *Leucocyte Typing VI: White cell differentiation antigens* (pp. 155–6). New York: Garland Publishing Inc.
- Barclay AN et al. (Eds.). (1997) CD56. In: *The Leucocyte Antigen Factsbook, Second Edition* (pp. 284–6). New York: Academic Press.
- Cremer H et al. (1994) Inactivation of the N-CAM gene in mice results in size reduction of the olfactory bulb and deficits in spatial learning. *Nature* 367(6462): 455–9.
- Lanier LL et al. (1991) Molecular and functional analysis of human natural killer cell-associated neural cell adhesion molecule (N-CAM/CD56). *J Immunol* 146(12): 4421–6.

PRODUCTS ARE FOR RESEARCH USE ONLY AND NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES UNLESS OTHERWISE STATED.

Copyright © 2020 by STEMCELL Technologies Inc. All rights reserved including graphics and images. STEMCELL Technologies & Design, STEMCELL Shield Design, Scientists Helping Scientists and EasySep are trademarks of STEMCELL Technologies Inc. All other trademarks are the property of their respective holders. While STEMCELL has made all reasonable efforts to ensure that the information provided by STEMCELL and its suppliers is correct, it makes no warranties or representations as to the accuracy or completeness of such information.