

# CD56 (NCAM) Monoclonal Antibody (TULY56), Super Bright™ 780, eBioscience™

Product Details	
Size	100 Tests
Species Reactivity	Human, Rhesus monkey
Host/Isotype	Mouse / IgG1, kappa
Recommended Isotype Control	Mouse IgG1 kappa Isotype Control (P3.6.2.8.1), Super Bright™ 780, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	TULY56
Conjugate	Super Bright™ 780
Form	Liquid
Concentration	5 µL/Test
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with BSA
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2735006

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	5 µL (0.5 µg)/test	2 Publications

## Product Specific Information

**Description:** This TULY56 monoclonal antibody reacts with human CD56, also known as Neural Cell Adhesion Molecule (NCAM). CD56 is a highly glycosylated transmembrane molecule expressed by neurons and plays a role in the homotypic adhesion of neural cells. In the hematopoietic system, CD56 is expressed on NK cells and a subset of T cells referred to as NKT cells.

Staining with TULY56 does not block binding of CMSSB, suggesting that the two antibodies recognize different epitopes. Additionally, TULY56 performs better after fixation and permeabilization than CMSSB.

The TULY56 monoclonal antibody crossreacts with Rhesus macaque.

**Applications Reported:** This TULY56 antibody has been reported for use in flow cytometric analysis.

**Applications Tested:** This TULY56 antibody has been pre-titrated and tested by flow cytometric analysis of normal human peripheral blood cells. This can be used at 5 µL (0.5 µg) per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10<sup>5</sup> to 10<sup>8</sup> cells/test.

Super Bright 780 is a tandem dye that can be excited with the violet laser line (405 nm) and emits at 780 nm. We recommend using a 780/60 bandpass filter. Please make sure that your instrument is capable of detecting this fluorochrome.

When using two or more Super Bright dye-conjugated antibodies in a staining panel, it is recommended to use Super Bright

Complete Staining Buffer (Product # SB-4401) to minimize any non-specific polymer interactions. Please refer to the datasheet for Super Bright Staining Buffer for more information.

In some experiments, we have observed that compensation values for Super Bright 780-conjugated antibodies are higher in the violet 450/50 channel when using UltraComp eBeads microspheres (Product # 01-2222-42) as compared to single-color stained cells. In such circumstances, we would recommend setting compensation with cells. We have also observed this in some experiments using AbC Total Antibody Compensation beads (Product # A10497).

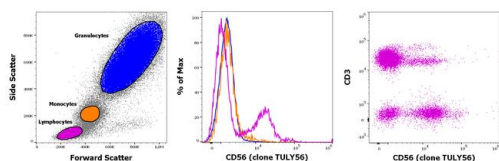
Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (Product # 00-8222) (100  $\mu$ L of cell sample + 100  $\mu$ L of IC Fixation Buffer) or 1-step Fix/Lyse Solution (Product # 00-5333) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency/compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone specific performance should be determined empirically.

Excitation: 405 nm; Emission: 780 nm; Laser: Violet Laser

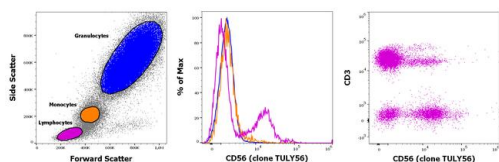
Super Bright Polymer Dyes are sold under license from Becton, Dickinson and Company.

## Product Images For CD56 (NCAM) Monoclonal Antibody (TULY56), Super Bright™ 780, eBioscience™



### CD56 (NCAM) Antibody (78-0566-42)

Staining of human peripheral blood mononuclear cells with CD45 Pacific Blue, CD3 FITC and CD56 Super Bright 780. As expected based on known relative expression patterns, CD56 clone TULY56 stains a subset of lymphocytes (pink), monocytes (orange) and not granulocytes (blue). {RE}



### CD56 (NCAM) Antibody (78-0566-42) in Flow

Staining of human peripheral blood mononuclear cells with CD45 Pacific Blue, CD3 FITC and CD56 Super Bright 780. As expected based on known relative expression patterns, CD56 clone TULY56 stains a subset of lymphocytes (pink), monocytes (orange) and not granulocytes (blue).

[View more figures on thermofisher.com](https://www.thermofisher.com)

## Flow Cytometry (2)

Journal of Cancer

### HDAC Inhibitor, CG-745, Enhances the Anti-Cancer Effect of Anti-PD-1 Immune Checkpoint Inhibitor by Modulation of the Immune Microenvironment.

"Published figure using CD56 (NCAM) monoclonal antibody (Product # 78-0566-42) in Flow Cytometry"

Authors: Kim YD, Park SM, Ha HC, Lee AR, Won H, Cha H, Cho S, Cho JM

**Species**  
Not Applicable

**Dilution**  
Not Cited

**Year**  
2020

Nature communications

### Heterogeneity of human bone marrow and blood natural killer cells defined by single-cell transcriptome.

"Published figure using CD56 (NCAM) monoclonal antibody (Product # 78-0566-42) in Flow Cytometry"

Authors: Yang C, Siebert JR, Burns R, Gerbec ZJ, Bonacci B, Rymaszewski A, Rau M, Riese MJ, Rao S, Carlson KS, Routes JM, Verbsky JW, Thakar MS, Malarkannan S

**Species**  
Not Applicable

**Dilution**  
Not Cited

**Year**  
2019

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