Anti-Human CD56 (MEM-188)

	REF	Σ		[A]	
PE	56PE2-100T	100 test	20 µL/test	0,05 mg/ml	RUO
APC	56A2-100T	100 test	20 µL/test	0,05 mg/ml	
PE/Cyanine7	56PC72-100T	100 test	5 µL/test	0,2 mg/ml	

1. PRODUCT DESCRIPTION

Clone: MEM-188;
Isotype: IgG1;
Tested application: flow cytometry;
Immunogen: The anti-CD56 monoclonal antibody derives from KG-1 human acute myelogenous leukemia cell line;
Workshop: Included in the VI, VII and VIII International Workshop on HLDA (WS Code A055, NK26 and 70077 respectively);
Species reactivity: Human, Cross-Reactivity: Cattle (Bovine, Cow), Swine (Pig, Porcine);
Storage instruction: store in the dark at 2-8 °C;
Storage buffer: aqueous buffered solution containing protein stabilizer and 0.09% sodium azide (NaN_3);
Recommended usage: Immunostep's CD56, clone MEM-188 is a monoclonal antibody intended for the identification and enumeration of Natural Killer (NK) cells and a subpopulation of T lymphocytes using flow cytometry. This reagent is effective for direct immunofluorescence staining of human tissue for flow cytometric analysis using 1 test for 10^6 cells;
Presentation: liquid;
Source: Supernatant proceeding from an in vitro cell culture of a cell hybridoma;
Purification: Affinity chromatography;
Other names: NCAM, Leu-19, NKH1;
Gene ID: 4684;
Molecular weight: 175 - 185 kDa.

2. ANTIGEN DETAILS

Large description: The antibody MEM-188 reacts with a 180 kDa isoform of CD56 (NCAM) expressed in leukocytes. It has been suggested that the antibody MEM-188 could react with rhesus monkey lymphocytes. Reactivity with other NCAM isoforms has not been tested.

CD56 (NCAM, neural cell adhesion molecule) is a transmembrane glycoprotein of immunoglobulin family serving as adhesive molecule which is ubiquitously expressed in nervous system, usually as 120 kDa, 140 kDa or 180 kDa isoform, and it is also found on T cells and NK cells. Polysialic modification results in reduction of CD56-mediated cell adhesion and is involved in cell migration, axonal growth, pathfinding and synaptic plasticity. CD56 is a widely used neuroendocrine marker with a high sensitivity for neuroendocrine tumours and ovarian granulosa cell tumours.[1-4]

3. WARRANTY

Warranted only to conform to the quantity and contents stated on the label or in the product labelling at the time of delivery to the customer. Immunostep disclaims hereby other warranties.

Immunostep's sole liability is limited to either the replacement of the products or refund of the purchase price.

4. ADDITIONAL INFORMATION

For research use only. Not for diagnostic use.

Not for resale. Immunostep will not be responsible of violations that may occur with the use of this product. Any use of this product other than the specified in this document is strictly prohibited.

Unless otherwise indicated by Immunostep by written authorization, this product is intended for research only and is not to be used for any other purpose, including without limitation, for human or animal diagnostic, therapeutic or commercial purposes.

Please, refer to www.immunostep.com technical support for more information.

5. PROTOCOL

Direct Immunofluorescence Cell Surface Staining Protocol

1. Transfer 100 ul (106 cells/test) of the sample to a 12 x 75 mm polystyrene test tube.
2. Add the suggested volume indicated on the antibody vial to the 12x75 mm cytometer tube.
3. Mix well and incubate in the dark at room temperature at 4 °C for 30 minutes or at room temperature (20-25 °C) for 15 minutes.
4. After the incubation period, add 1,5 ml of an erythrocyte-lysing solution and mix. Incubate at room temperature in the darkness (the blood should be well mixed with the lysing solution).
5. Centrifuge tubes at 540xg for 5 minutes. The supernatant is removed with a Pasteur pipette or with a vacuum pump.
6. Resuspend and wash with 3-5 mL of PBS at 540xg for 5 min.
7. After removing the supernatant and resuspending the cell pellet, add 300 µL of PBS and adquire on the flow cytometer are recorded.
8. Analyse on a flow cytometer or store at 2- 8 °C in the dark until analysis. Samples can be run up to 24 hours after lysis.

Indirect Immunofluorescence Cell Surface Staining Protocol

1. Transfer 100 ul (106 cells/test) of the sample to a 12 x 75 mm polystyrene test tube.
2. Add purified reagent according to manufacturer's recommendation and mix gently with a vortex mixer.
3. Incubate in the dark at room temperature at 4 °C for 30 minutes or at room temperature (20-25 °C) for 15 minutes.
4. Add 2 mL 0.01 mol/L PBS (It betters that it containing 2% bovine serum albumin) and resuspend the cells by using a vortex mixer. Centrifuge at 540xg for 5 min in order to remove the McAb not bound to its antigen.
5. Add a secondary conjugated reagent with some fluorochrome and mix. Incubate at room temperature for 15 min in the dark. The absence of light is necessary as the fluorochrome is photoinstability.
6. After the incubation period, add 1,5 ml of an erythrocyte-lysing solution and mix. Incubate at room temperature in the darkness (the blood should be well mixed with the lysing solution). Centrifuge at 540xg for 5 minutes. The supernatant is removed with a Pasteur pipette or with a vacuum pump.
7. Resuspend and a made a final wash with 3-5 mL of PBS at 540xg for 5 min.
8. After removing the supernatant and resuspending the cell pellet, add 300 µL of PBS and adquire on the flow cytometer are recorded.
9. Analyse on a flow cytometer or store at 2- 8 °C in the dark until analysis. Samples can be run up to 24 hours after lysis.

6. REFERENCES

1. Mason D. Leucocyte typing VII : white cell differentiation antigens : proceedings of the Seventh International Workshop and Conference held in Harrogate, United Kindom. Oxford: Oxford University Press; 2002.
2. Brdickova N, Brdicka T, Angelisova P, Horvath O, Spicka J, Hilgert I, et al. LIME: a new membrane Raft-associated adaptor protein involved in CD4 and CD8 coreceptor signaling. J Exp Med2003 Nov 17;198(10):1453-62.
3. Lin CW, Liu TY, Chen SU, Wang KT, Medeiros LJ, Hsu SM. CD94 1A transcripts characterize lymphoblastic lymphoma/leukemia of immature natural killer cell origin with distinct clinical features. Blood2005 Nov 15;106(10):3567-74.
4. Drbal K, Moertelmaier M, Holzhauser C, Muhammad A, Fuertbauer E, Howorka S, et al. Single-molecule microscopy reveals heterogeneous dynamics of lipid raft components upon TCR engagement. Int Immunol2007 May;19(5):675-84.

7. EXPLANATION OF SYMBOLS

	Form
REF	Catalog reference
Σ	Contains sufficient for > test
	Quantity per test
	Regulatory Status
RUO	Research Use Only
[A]	Concentration
	Manufacturer

8. MANUFACTURED BY:

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