Anti-Human CD98 (FG1/8)

	REF	Σ		
PURE	98PU	1 mg	1 mg/ml	
PURE	98PU-01MG	100 µg	1 µg/test	0,01 mg/ml
FITC	98F-100T	100 test	20 µL/test	2 mg/ml
PE	98PE-100T	100 test	20 µL/test	2 mg/ml
PerCP	98PP-100T	100 test	5 µL/test	0,05 mg/ml
APC	98A-100T	100 test	5 µL/test	0,05 mg/ml
Biotin	98B-01MG	100 µg	1 µg/test	0,01 mg/ml
CF-Blue	98CFB-100T	100 test	5 µL/test	0,05 mg/ml

RUO

1. PRODUCT DESCRIPTION

Clone: FG1/8;
Isotype: IgG1;
Tested application: flow cytometry;
Immunogen: The anti-CD98 monoclonal antibody derives from T cells from leukemic HPB-ALL;
Species reactivity: Human;
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 CD98, clone FG1/8, is a monoclonal antibody intended for the identification and enumeration of human leukocyte lineages 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: 4F2, FRP-1, RL-388, 4F2hc, 4F2 heavy chain antigen, Lymphocyte activation antigen 4F2 large subunit, Solute carrier family 3 member 2;
Gene ID: 6520;
Molecular weight: 125 kDa.

2. ANTIGEN DETAILS

Large description: This antibody reacts with the CD98 antigen, which is broadly expressed on peripheral blood lymphocytes, monocytes and granulocytes (low) .It is also expressed on non-hematopoietic cells. Reports suggest that CD98 may be involved in the regulation of cellular activation. CD98 is up-regulated on leukocytes and in inflammatory lesions, and strongly expressed by neoplastic cells. However, expression is not hematopoietic specific. CD98 is expressed in HUVECS and at low levels in resting peripheral blood T-lymphocytes and quiescent fibroblasts. Also it is expressed in fetal liver and in the astrocytic process of primary astrocytic gliomas, in retinal endothelial cells and in the intestinal epithelial cell line C2BBel.[1-3]

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. Quackenbush E, Clabby M, Gottesdiener KM, Barbosa J, Jones NH, Strominger JL, et al. Molecular cloning of complementary DNAs encoding the heavy chain of the human 4F2 cell-surface antigen: a type II membrane glycoprotein involved in normal and neoplastic cell growth. Proc Natl Acad Sci U S A1987 Sep;84(18):6526-30.
2. Portales-Perez D, Alarcon-Segovia D, Llorente L, Ruiz-Arguelles A, Abud-Mendoza C, Baranda L, et al. Penetrating anti-DNA monoclonal antibodies induce activation of human peripheral blood mononuclear cells. J Autoimmun1998 Oct;11(5):563-71.
3. Liu X, Charrier L, Gewirtz A, Sitaraman S, Merlin D. CD98 and intracellular adhesion molecule I regulate the activity of amino acid transporter LAT-2 in polarized intestinal epithelia. J Biol Chem2003 Jun 27;278(26):23672-7.

7. EXPLANATION OF SYMBOLS

	Form
REF	Catalog reference
Σ	Contains sufficient for <n> test
	Quantity per test
	Regulatory Status
RUO	Research Use Only
	Manufacturer

8. MANUFACTURED BY:

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