PRODUCT INFORMATION SHEET

Monoclonal antibodies detecting human antigens

CD2 FITC **CD19** R-PE RUO REF IQP-252FR 50 tests

RUO ***For Research Use Only***

Description

CD2 reacts with all human peripheral T-lymphocytes and a fraction of the NK cell (large granular lymphocyte) population. It reacts specifically with a 45-50 kD single chain transmembrane glycoprotein, also known as the LFA-2, or the sheep erythrocyte receptor. CD2 antigen plays a role in T cell signaling and in lymphocyte adhesion. The major ligand for the extracellular portion of human CD2 is CD58 (LFA3).
Detection of CD19 expressing cells is important in the diagnosis of leukemic precursor B cells (pre-B ALL), mature B cells (B ALL), and plasma cells. Distinction between subtypes of these (acute) leukemias can be performed using CD19 antibodies together with monoclonal antibodies to cytoplasmic or membrane Ig. A large number of B cell disorders can be effectively characterized by expression of CD19 and one or more additional antigens. One example is hairy cell leukemia (HCL), which shows specific expression of CD11c, CD19, CD20 and CD103. The combination for distinction between different leukemias using CD19 antibodies are CD5/CD19 (e.g. Chronic Lymphatic Leukemia); CD10/CD19 (common ALL and pre-B ALL) and CD19/cyCD79a (Acute B cell leukemia).

CD2

Clone B-E2

Isotype Murine IgG2b

Specificity Clone B-E2 produces mouse IgG2b immunoglobulins specific for a 45-50 kD single chain transmembrane glycoprotein, the CD2 antigen.

HLDA Workshop
4th International Workshop on Human Leukocyte Differentiation Antigens

CD19

Clone HD37

Isotype Murine IgG1

Specificity Monoclonal antibodies clustered as CD19 detect all peripheral blood B cells. In addition, CD19 is expressed on precursor B cells during maturation, but not on mature plasma cells. The function of the CD19 molecule is related to signal transfer and is involved in regulation of B cell proliferation. CD19 is considered to be a characteristic B cell marker and therefore commonly used in routine immunophenotyping. CD19 may also be expressed on follicular dendritic cells.

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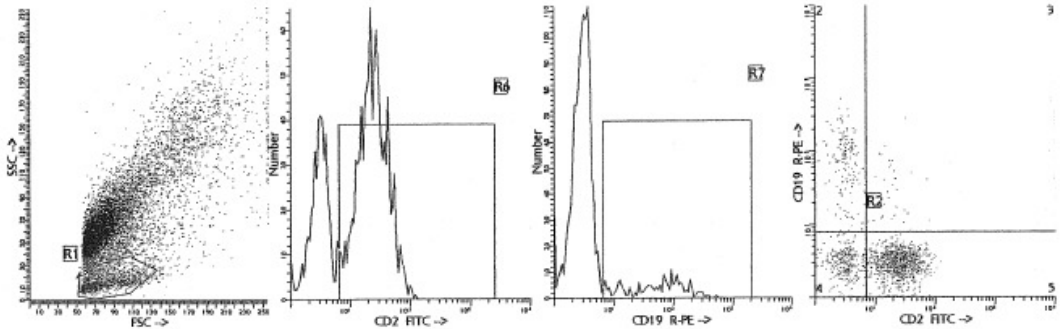
Usage All these reagents are effectively formulated for direct immunofluorescent staining of human tissue for flow cytometric analysis using 10 µL/10^6 leukocytes for singles and 20 µL/10^6 leukocytes in case of dual and triple combinations. Since applications vary, each investigator should titrate the reagent to obtain optimal results.

Representative Data
IQP-252FR (CD2/CD19) was analyzed by flow cytometry using a blood sample from a healthy volunteer. Direct staining was performed by adding 20 µl of this dual to 100 µl blood sample.



Immunofluorescence staining and lysing protocol

Flow cytometry method for use with dual and triple combinations

1. Add 100 µl of EDTA-treated blood (i.e. approx. 10^6 leukocytes) to a 5 ml reagent tube. The content of one tube is sufficient to perform one test.
   For combinations with anti-kappa and/or anti-lambda Ig see application note below.
2. Add to each tube 20 µl of labeled monoclonal antibody combination*.
3. Vortex the tube to ensure thorough mixing of antibody and cells.
4. Incubate the tube for 15 minutes at room temperature in the dark.
5. Add 100 µl of IQ Lyse (IQP-199 ready-to-use) and mix immediately.
6. Incubate for 10 minutes at room temperature in the dark.
7. Add 2 ml of demineralized water and incubate for 10 minutes in the dark.
8. Centrifuge the labeled cell suspension for 2 minutes at 1000 x g.
9. Remove the supernatant and resuspend the cells in 200 µl of PBS**.
10. Analyze by flow cytometry within four hours (alternatively, the cells may be fixed by 0.05% of formaline in buffered saline for analysis the next day. Some antigens are readily destroyed upon fixation and this should be taken into account when using this alternative).

** Appropriate mouse Ig isotype control samples can be included in any labeling study*
*** PBS: Phosphate Buffered Saline, pH 7.2*

Application note for anti-kappa and/or anti-lambda Ig combinations

Add 2 ml of PBS containing 0.001% (v/v) Heparin (**prewarmed to 37 °C**) to the cell suspension
Vortex, centrifuge (2 min at 300x g) and discard the supernatant
Repeat this step twice
Resuspend the pelleted blood cells in 100 µl PBS containing 0.001% (v/v) Heparin

Handling and Storage

Antibodies are supplied either as 100 tests per vial (1 ml) for singles or 50 tests per vial (1 ml) for dual and triple combinations. They are supplied in 0.01 M sodium phosphate, 0.15 M NaCl; pH 7.3, 0.2% BSA, 0.09% sodiumazide (NaN_3). Store the vials at 2-8 °C. Monoclonal antibodies should be protected from prolonged exposure to light. Reagents are stable for the period shown on the vial label when stored properly.

Warranty Products sold hereunder are warranted only to conform to the quantity and contents stated on the label at the time of delivery to the customer. There are no warranties, expressed or implied, which extend beyond the description on the label of the product. IQ Products is not liable for property damage, personal injury, or economic loss caused by the product.

Characterization

To ensure consistently high-quality reagents, each batch of monoclonal antibody is tested for conformance with characteristics of a standard reagent. Representative flow cytometric data is included in this data sheet.

Warning All products contain sodiumazide. This chemical is poisonous and hazardous. Handling should be done by trained staff only.

Explanation of used symbols

	Consult instructions for use
REF	Catalogue number
	Sufficient for
IVD	In Vitro Diagnostic medical device
	Caution, consult accompanying document
	Keep away from (sun)light
	Biological risks
	Temperature limitation (°C)
RUO	For Research Use Only
LOT	Batch code
	Use by yyyy-mm-dd
	Manufacturer
EC REP	Authorized Representative in the European Community
CE	Conformité Européenne (European Conformity)

		Label - tandem	**Ex -max (nm)**	**Em -max (nm)**
P	PURE	purified material	-	-
F	FITC	FITC	488	519
R	R-PE	PE	488, 532	578
C	CyQ	PE-Cy5.18	488, 532	667
A	APC		595, 633, 635, 647	660
PC	PerCP		488, 532	678
PCC	PerCP-Cy5.5		488, 532	695

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