

PRODUCT INFORMATION SHEET
Monoclonal antibodies detecting human antigens

Anti-D

R-PE RUO REF IQP-513R ▽ 100 tests

RUO *For research use only*



Description

Clone NaTH109-1G2

Isotype Human IgG

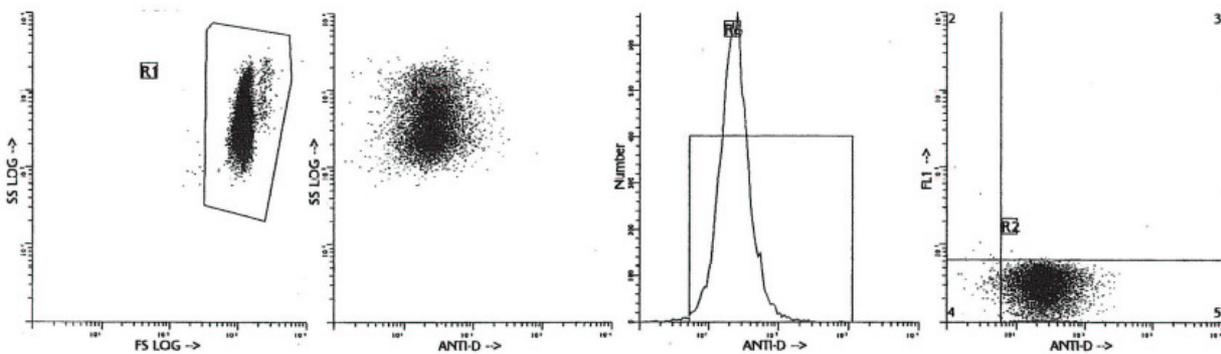
Specificity Clone NaTH109-1G2 immunoglobulin (IgG) is a human plasma-based product against the human D antigen of human red blood cells.

Applications Monoclonal antibodies to anti-D, Clone NaTH109-1G2, can be applied in flow cytometry for analysis of blood. During pregnancy, fetal blood cells are made in the fetus. The fetal RBCs have the characteristics that are inherited from his/her parents. The mother continues to maintain her own separate blood supply with its own unique characteristics. The placenta acts as a barrier between the blood systems of the mother and her baby and passes oxygen and other nutrients from the mother's blood to that of the child while maintaining the blood supplies separately. Rh(D) HDN occurs when an Rh(D)-neg. mother conceives an Rh(D)-pos. embryo (the Rh(D) antigen comes from the father). When a few of the baby's Rh(D)-pos. RBCs enter into the mother's blood system (usually through delivery or by amniocentesis, miscarriage, abortion, etc.) the mother's immune system responds to these "foreign" Rh(D)-pos. cells and may form antibodies to the Rh(D) antigen on the fetal RBC surface. It takes time to mount an antibody defense. Therefore, the first Rh(D)-pos. child is usually unaffected. During the next Rh(D)-pos. pregnancy, the antibodies created by the immune system during the first exposure are expanded as a result of the additional exposure to RBCs from the new Rh(D)-pos. fetus. The antibodies are transported across the placenta into the baby where they act to remove Rh(D)-pos. RBCs from the fetal circulation leading to anemia and fetal stress. There are no complications for the mother in these circumstances, but there may be complications for the baby.

Usage All these reagents are effectively formulated for direct immunofluorescent staining of human tissue for flow cytometric analysis using 10 µl/10⁶ leukocytes for singles and 20 µl/10⁶ leukocytes in case of dual and triple combinations. Since applications vary, each investigator should titrate the reagent to obtain optimal results.

Representative Data

Staining with clone NaTH109-1G2 (CD240) is illustrated by flow cytometry analysis of normal blood cells. Direct staining was performed using 10 µl of the R-PE-conjugated antibody and 100 µl red blood cell suspension.



Flow cytometry method for use with purified monoclonal antibodies

1. Collect blood on heparin or EDTA and centrifuge (10 minutes, 600g).
2. Wash the pellet of erythrocytes three times with 2 ml of PBS** and centrifuge (2 minutes, 1200 x g).
3. Prepare a 10% erythrocytes suspension in PBS.**
4. Dilute the labeled monoclonal antibody 1/10 in PBS** containing 1 % (v/v) BSA.
5. Incubate 100 µl of diluted labeled monoclonal with 10 µl of the 10% erythrocyte suspension for 15 minutes at 37 °C.
6. Wash twice with PBS and centrifuge (2 minutes, 1200 x g).
7. Prepare a cell suspension by addition of 500 µl PBS** to the pellet and analyze by flow cytometer.

*Note: * Appropriate human Ig-isotype control samples should always be included in any labeling study
** PBS: Phosphate Buffered Saline, pH 7.2*

References

1. Davis, B.H., et al., 1988, Detection of fetal red blood cells in fetomaternal hemorrhage using a fetal hemogl. Transfusion; 38 (8): 749-756.
2. Jonson, P.R.E., et al., 1995, Flow cytometry in diagnosis and management of large fetomaternal haemorrh., J. Clin. Path. 48:1005-1008.
3. Nelson, M., et al., 1998, A flow cytometric equivalent of the Kleihauer test. Vox Sang, 75: 234-241.
4. Blanchard, D., et al., Flow cytometry quantification of anti-RH1 in maternal plasma samples: validation of method.



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 (NaN₃). 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
	Catalogue number
	Sufficient for
	In Vitro Diagnostic medical device
	Caution, consult accompanying document
	Keep away from (sun)light
	Biological risks
	Temperature limitation (°C)
	For Research Use Only
	Batch code
	Use by yyyy-mm-dd
	Manufacturer
	Authorized Representative in the European Community
	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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