

## PRODUCT INFORMATION SHEET

### Monoclonal antibodies detecting human antigens

#### CD200

PURE	<span style="border: 1px solid black; padding: 0 2px;">RUO</span>	<span style="border: 1px solid black; padding: 0 2px;">REF</span>	IQP-642P	▽ 100 test
FITC	<span style="border: 1px solid black; padding: 0 2px;">RUO</span>	<span style="border: 1px solid black; padding: 0 2px;">REF</span>	IQP-642F	▽ 100 test
R-PE	<span style="border: 1px solid black; padding: 0 2px;">RUO</span>	<span style="border: 1px solid black; padding: 0 2px;">REF</span>	IQP-642R	▽ 100 test
APC	<span style="border: 1px solid black; padding: 0 2px;">RUO</span>	<span style="border: 1px solid black; padding: 0 2px;">REF</span>	IQP-642A	▽ 100 test

RUO **For Research Use Only**



#### Description

**Clone** OX-104

**Isotype** Murine IgG1

**Specificity** The mouse monoclonal antibody OX-104 recognizes CD200, a type-1 glycoprotein of the immunoglobulin superfamily, which is expressed in neurons, B and T cell subsets, keratinocytes, follicular dendritic cells, and ovarian cells. HLDA VII; WS Code 70655

**Species** Human

**Immunogen** Human CD200

**Summary** CD200 (also known as OX2 or MRC) is a type-1 membrane glycoprotein, which contains two extracellular immunoglobulin domains, transmembrane domain and cytoplasmic domain. It is expressed by neuronal cells, B and T cell subsets, follicular dendritic cells, keratinocytes, and ovarian cells. The interaction between CD200 and its receptor CD200R results in macrophage activation (IL-6 production), inhibition of mast cell degranulation along with reduced TNF-alpha and IL-13 secretion and overall attenuation of the activation status of lymphocytes. It seems CD200 is also involved in maternal tolerance and its decreased expression in hair follicle correlates with follicular miniaturization.

**Applications** FC, IHC(F), FUNC. Determining optimal working dilutions by titration test.

#### Limitations

1. Conjugates with brighter fluorochromes, like PE and APC, will have a greater separation than those with dyes like FITC and CyQ. When populations overlap, the percentage of positive cells using a selected marker can be affected by the choice of fluorescent label.
2. Use of monoclonal antibodies in patient treatment can interfere with antigen target recognition by this reagent. This should be taken into account when samples are analyzed from patients treated in this fashion. IQ Products has not characterized the effect of the presence of therapeutic antibodies on the performance of this reagent.
3. Reagents can be used in different combinations, therefore laboratories need to become familiar performance characteristics of each antibody in relation with the combined markers in normal and abnormal samples.
4. Reagent performance can be affected by the use of anticoagulants.



#### Handling and Storage

Antibodies are supplied in phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4. Store the vials at 2-8°C. Monoclonal antibodies should be protected from prolonged exposure to light when conjugated with fluorochromes. 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.

## Warning

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

## References

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2. Li Y, Zhao LD, Tong LS, Qian SN, Ren Y, Zhang L, Ding X, Chen Y, Wang YX, Zhang W, Zeng XF, Zhang FC, Tang FL, Zhang X, Ba DN, He W, Cao XT, Lipsky PE: Aberrant CD200/CD200R1 expression and function in systemic lupus erythematosus contributes to abnormal T-cell responsiveness and dendritic cell activity. Arthritis Res Ther. 2012 May 23;14(3):R123. doi: 10.1186/ar3853.
3. Shiratori I, Yamaguchi M, Suzukawa M, Yamamoto K, Lanier LL, Saito T, Arase H: Down-regulation of basophil function by human CD200 and human herpesvirus-8 CD200. J Immunol. 2005 Oct 1;175(7):4441-9.
4. Colmont CS, Benketah A, Reed SH, Hawk NV, Telford WG, Ohyama M, Udey MC, Yee CL, Vogel JC, Patel GK: CD200-expressing human basal cell carcinoma cells initiate tumor growth. Proc Natl Acad Sci U S A. 2013 Jan 22;110(4):1434-9.
5. Foster-Cuevas M, Wright GJ, Puklavec MJ, Brown MH, Barclay AN: Human herpesvirus 8 K14 protein mimics CD200 in down-regulating macrophage activation through CD200 receptor. J Virol. 2004 Jul;78(14):7667-76.
6. Meuth SG, Simon OJ, Grimm A, Melzer N, Herrmann AM, Spitzer P, Landgraf P, Wiendl H: CNS inflammation and neuronal degeneration is aggravated by impaired CD200-CD200R-mediated macrophage silencing. J Neuroimmunol. 2008 Feb;194(1-2):62-9.
7. Garza LA, Yang CC, Zhao T, Blatt HB, Lee M, He H, Stanton DC, Carrasco L, Spiegel JH, Tobias JW, Cotsarelis G: Bald scalp in men with androgenetic alopecia retains hair follicle stem cells but lacks CD200-rich and CD34-positive hair follicle progenitor cells. J Clin Invest. 2011 Feb;121(2):613-22

## Explanation of used symbols



Consult instructions for use  
Catalogue number  
Sufficient for  
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

**Products**  
bright fluorescence

		<b>Label - tandem</b>	<b>Ex -max (nm)</b>	<b>Em -max (nm)</b>
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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