

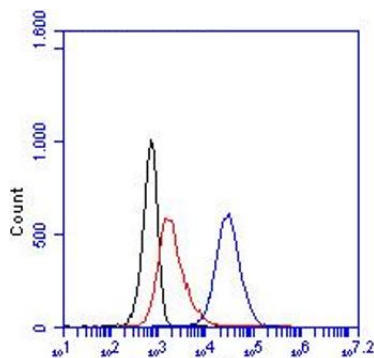
CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name	CD200R3, Mouse, clone Ba91	Expiry date	-
Catalog number	HM1104-20UG	Amount	20 µg
Lot number	-	Concentration	100 µg/ml
Volume	200 µl	Conjugate	None
Formulation	0.2 µm filtered in PBS+0.1%BSA	Purification	Protein G
Host Species	Rat IgG2a		
Endotoxin	<24 EU/mg		
Storage	4°C		

Application notes

	IHC-F	IHC-P	IF	FC	FS	IA	IP	W
Reference #				1,3	1-4		1	
Yes				•	•		•	
No								
N.D.	•	•	•			•		•

N.D.= Not Determined; IHC = Immuno histochemistry; F = Frozen sections; P = Paraffin sections; IF = Immuno Fluorescence; FC = Flow Cytometry; FS = Functional Studies; IA = Immuno Assays; IP = Immuno Precipitation; W = Western blot



FC: Flow cytometry with MC/9 cells. The black line represents the cells only, the red line the isotype control and the blue line HM1104 (1 µg/ml).

Dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:50.

- FC: MC/9 cells were washed, resuspended in FACS buffer (PBS with 2% BSA), and incubated for 30min with HM1104.
- Positive control: MC/9; Negative control: CFTL-15 cells, T-cells, B-cells, macrophages, neutrophils

General Information
Description

The monoclonal antibody Ba91 recognizes mouse CD200 Receptor-like 3 (CD200R3), a protein of ~38 kDa or ~74 kDa (reduced or non-reduced condition, respectively). CD200R3 presumably exists as a disulfide-linked dimer on the cell surface.

The OX-2, or CD200 receptor (CD200R), belongs to the immunoglobulin superfamily. CD200R contains two Ig-like extracellular domains and mediates inhibitory signals in myeloid cells. Mice deficient for the ligand CD200 develop enhanced experimental allergic encephalomyelitis and collagen-induced arthritis. Unlike CD200R, the CD200R-like receptors functions as activating receptors. They contain short cytoplasmic tails and a lysine residue in the transmembrane region and are likely to signal via adaptor proteins such as DAP12, DAP10, FcRγ, or CD3γ.

CD200R3 is expressed preferentially on cells of the myeloid lineage, including mast cells and basophils. Both cell types are involved in the host defense system against pathogens and in the development of allergic disorders. They function as independent essential initiators of allergic reactions. Basophils are the least common leukocytes in the peripheral blood accounting approximately 0.5 % of all leukocytes. In vivo depletion of basophils by using monoclonal antibody proved the essential role of basophils in the development and maintenance of IgE-mediated chronic allergic inflammation.

The activating CD200 receptors, like CD200R3, play an important role in IgE-independent mast cell and basophil activation. Monoclonal antibody Ba91 activates basophils *ex vivo* and elicits systemic anaphylaxis when administered *in vivo*. Cross-linking of CD200R3 on MC/9 cells by monoclonal antibody Ba91 induces degranulation. Monoclonal antibody Ba91 is also useful for depletion of basophils.

Immunogen	Mouse primary basophils; cell-enriched bone marrow cells
Aliases	Cell surface glycoprotein CD200 receptor 3, CD200 receptor-like 3, CD200 cell surface glycoprotein receptor-like b, CD200RLb, cell surface glycoprotein OX-2 receptor 3
Gene	Gene name: Cd200r3, Cd200rlb
References	<ol style="list-style-type: none">1. Kojima, T et al; Mast cells and basophils are selectively activated <i>in vitro</i> and <i>in vivo</i> through CD200R3 in an IgE-independent manner. <i>J Immunol</i> 2007, <i>179</i>: 70932. Sullivan, B et al; Basophils: A Nonredundant Contributor to Host Immunity. <i>Immunity review</i> 2008, <i>30</i>:123. De Haan, J et al; Lipid-rich enteral nutrition regulates mucosal mast cell activation via the vagal anti-inflammatory reflex. <i>Am J Physiol Gast Liver Physiol</i>, <i>305</i>:G3834. Yang, Y et al; Basophil activation through ASGM1 stimulation triggers PAF release and anaphylaxis-like shock in mice. <i>Eur J Immunol</i> 2014, <i>44</i>:24685. Nakamura, T et al; Selective depletion of basophils ameliorates immunoglobulin E-mediated anaphylaxis. <i>Biochem Bioph Reports</i> 2017, <i>9</i>:29
Storage&stability	Product should be stored at 4°C. Under recommended storage conditions, product is stable for at least one year.
Precautions	For research use only. Not for use in or on humans or animals or for diagnostics. It is the responsibility of the user to comply with all local/state and federal rules in the use of this product. Hycult Biotech is not responsible for any patent infringements that might result from the use or derivation of this product.

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Approved by Manager of QC
Brenda Teunissen

Date
11/11/2020

Do you have any questions or comments regarding this product? Please contact us via support@hycultbiotech.com.