

**MONOCLONAL ANTIBODY TO  
MOUSE CD200 RECEPTOR-LIKE 3  
clone Ba91**



<b>Catalog nr</b>	HM1104 (lot number and expiry date are indicated on the label)
<b>Description</b>	<p>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.</p> <p>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, FcR<math>\gamma</math>, or CD3<math>\zeta</math>.</p> <p>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. <i>In vivo</i> depletion of basophils by using monoclonal antibody proved the essential role of basophils in the development and maintenance of IgE-mediated chronic allergic inflammation.</p> <p>The activating CD200 receptors, like CD200R3, play an important role in IgE-independent mast cell and basophil activation. Monoclonal antibody Ba91 activates basophils <i>ex vivo</i> and elicits systemic anaphylaxis when administered <i>in vivo</i>. Cross-linking of CD200R3 on MC/9 cells by monoclonal antibody Ba91 induces degranulation. Monoclonal antibody Ba91 is also useful for depletion of basophils.</p>
<b>Aliases</b>	CD200R3, CD200RLb, OX-2 Receptor 3
<b>Immunogen</b>	Mouse primary basophils
<b>Species</b>	Rat IgG <sub>2a</sub>
<b>Formulation</b>	1 ml (100 $\mu$ g/ml) 0.2 $\mu$ m filtered antibody solution in PBS, containing 0.1% bovine serum albumin.
<b>Application</b>	The monoclonal antibody Ba91 can be used for flow cytometry, and immuno precipitation. Furthermore, the monoclonal antibody Ba91 is useful for functional studies.
<b>Use</b>	For flow cytometry, and immuno precipitation, 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. For functional studies, <i>in vitro</i> dilutions have to be optimized in user's experimental setting.
<b>Storage and stability</b>	Product should be stored at 4°C. Under recommended storage conditions, product is stable for one year.
<b>Precautions</b>	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 with the use or derivation of this product.
<b>References</b>	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. J Immunol 2007, 179: 7093
<b>Also available</b>	HM1066 Monoclonal antibody against Mouse F4/80-Macrophages, clone BM8 HM1071 Monoclonal antibody against Mouse Dendritic cells, clone MIDC-8 HM1082 Monoclonal antibody against Mouse Ly-6C, clone ER-MP20 HM1086 Monoclonal antibody against Mouse Fibroblasts, clone ER-TR7 HM1103 Monoclonal antibody against Mouse CD200R3, clone Ba103 HM1103F FITC conjugated monoclonal antibody against Mouse CD200R3, clone Ba103 HM1104F FITC conjugated monoclonal antibody against Mouse CD200R3, clone Ba91