

## Datasheet: MCA333S

**BATCH NUMBER 171274**

<b>Description:</b>	CHIMERIC HUMAN IgE ANTI NP
<b>Specificity:</b>	CHIMERIC HUMAN IgE ANTI NP
<b>Format:</b>	S/N
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	JW8/1
<b>Isotype:</b>	IgE
<b>Quantity:</b>	2 ml

## Product Details

### Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry			▪	
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA	▪			1/20 - 1/100
Immunoprecipitation			▪	
Western Blotting			▪	
Functional Assays (1)	▪			

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

**(1) This product contains sodium azide, removal by dialysis is recommended prior to use in functional assays.**

<b>Target Species</b>	Human
<b>Product Form</b>	Tissue Culture Supernatant - liquid
<b>Preparation</b>	Tissue Culture Supernatant containing 5-10% foetal calf serum
<b>Buffer Solution</b>	None present
<b>Preservative Stabilisers</b>	0.09% Sodium Azide

<b>Immunogen</b>	Hapten, 4-hydroxy-3-nitrophenylacetyl (NP).
<b>RRID</b>	AB_567284
<b>Fusion Partners</b>	Plasmids containing chimaeric heavy chain gene were fused with cells of the J558L mouse myeloma cell line.
<b>Specificity</b>	The immunoglobulin heavy chain has been produced by the linking of the antigen-binding, variable region genes of a mouse hybridoma to human constant region genes by <i>in vitro</i> DNA recombination procedures. The resulting chimeric antibody is subsequently expressed by the myeloma cell-line J558L after transfection. (The J558L cell-line self secretes a lambda light chain but no heavy chain). Thus a chimeric human IgE antibody specific for NP has been produced.
<b>References</b>	<ol style="list-style-type: none"> <li>1. Neuberger, M.S. <i>et al.</i> (1984) Recombinant antibodies possessing novel effector functions. <a href="#">Nature. 312 (5995): 604-8.</a></li> <li>2. Neuberger, M.S. <i>et al.</i> (1985) A hapten-specific chimaeric IgE antibody with human physiological effector function. <a href="#">Nature. 314 (6008): 268-70.</a></li> <li>3. Novak, N. <i>et al.</i> (2003) Evidence for a differential expression of the FcepsilonRIgamma chain in dendritic cells of atopic and nonatopic donors. <a href="#">J Clin Invest. 111: 1047-56.</a></li> <li>4. Sayers, I. <i>et al.</i> (2004) The importance of Lys-352 of human immunoglobulin E in FcepsilonRII/CD23 recognition. <a href="#">J Biol Chem. 279: 35320-5.</a></li> <li>5. Kulka, M. and Metcalfe, D.D. (2004) High-resolution tracking of cell division demonstrates differential effects of TH1 and TH2 cytokines on SCF-dependent human mast cell production in vitro: correlation with apoptosis and Kit expression. <a href="#">Blood. 105: 592-9.</a></li> <li>6. Vangelista, L. <i>et al.</i> (2005) Membrane IgE binds and activates Fc epsilon RI in an antigen-independent manner. <a href="#">J Immunol. 174: 5602-11.</a></li> <li>7. Sawada, J. <i>et al.</i> (2005) Stem cell factor has a suppressive activity to IgE-mediated chemotaxis of mast cells. <a href="#">J Immunol. 174: 3626-32.</a></li> <li>8. Sallmann, E. <i>et al.</i> (2011) High-Affinity IgE Receptors on Dendritic Cells Exacerbate Th2-Dependent Inflammation. <a href="#">J Immunol. 187: 164-71.</a></li> <li>9. Xu, D. <i>et al.</i> (2012) RN486, a selective Bruton's tyrosine kinase inhibitor, abrogates immune hypersensitivity responses and arthritis in rodents. <a href="#">J Pharmacol Exp Ther. 341 (1): 90-103.</a></li> <li>10. Ferguson, G.D. <i>et al.</i> (2016) A Novel Triazolopyridine-Based Spleen Tyrosine Kinase Inhibitor That Arrests Joint Inflammation. <a href="#">PLoS One. 11 (1): e0145705.</a></li> <li>11. Shirley D <i>et al.</i> (2016) Resveratrol preferentially inhibits IgE-dependent PGD<sub>2</sub> biosynthesis but enhances TNF production from human skin mast cells. <a href="#">Biochim Biophys Acta. pii: S0304-4165(16)00015-5.</a></li> <li>12. Troupin, A. <i>et al.</i> (2016) A Role for Human Skin Mast Cells in Dengue Virus Infection and Systemic Spread. <a href="#">J Immunol. 197 (11): 4382-4391.</a></li> <li>13. Bratke, K. <i>et al.</i> (2017) Differential regulation of PD-1 and its ligands in allergic asthma. <a href="#">Clin Exp Allergy. 47 (11): 1417-25.</a></li> <li>14. Burton, O.T. <i>et al.</i> (2017) A humanized mouse model of anaphylactic peanut allergy <a href="#">J Allergy Clin Immunol 139 (1): 314-22.e9.</a></li> <li>15. McHale, C. <i>et al.</i> (2018) Interleukin-6 potentiates FcεRI-induced PGD<sub>2</sub> biosynthesis and induces VEGF from human in situ-matured skin mast cells. <a href="#">Biochim Biophys Acta</a></li> </ol>

[Gen Subj. 1862 \(5\): 1069-78.](#)

16. Shan, M. *et al.* (2018) Secreted IgD Amplifies Humoral T Helper 2 Cell Responses by Binding Basophils via Galectin-9 and CD44. [Immunity. 49 \(4\): 709-724.e8.](#)

17. Mohammed, Z. *et al.* (2022) miR-155 Is a Positive Regulator of FcεRI-Induced Cyclooxygenase-2 Expression and Cytokine Production in Mast Cells. [Front Allergy. 3: 835776.](#)

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19. Kawakami, Y. *et al.* (2026) Regulation of IgE-Mediated Allergic Reactions by Disulfide-Linked Multimers of Histamine-Releasing Factor [J Clin Immunol Microbiol. 7 \(1\): 1-29.](#)

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**Storage**

This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

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**Guarantee**

12 months from date of despatch

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**Health And Safety Information**

Material Safety Datasheet documentation #10053 available at: <https://www.bio-rad-antibodies.com/SDS/MCA333S>

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**Regulatory**

For research purposes only

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**Product inquiries:** [www.bio-rad-antibodies.com/technical-support](http://www.bio-rad-antibodies.com/technical-support)

To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](http://bio-rad-antibodies.com/datasheets)  
'M445617:250910'

**Printed on 21 May 2026**