# Datasheet: MCA1590T

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| **Description:** | MOUSE ANTI HUMAN CD40 |
| **Specificity:** | CD40 |
| **Format:** | Purified |
| **Product Type:** | Monoclonal Antibody |
| **Clone:** | LOB7/6 |
| **Isotype:** | IgG2a |
| **Quantity:** | 25 µg |

## 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.

| | Yes | No | Not Determined | Suggested Dilution |
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| Flow Cytometry | ▪ | | | 20ug/ml |
| Immunohistology - Frozen | ▪ | | | 1ug/ml - 10ug/ml |
| Immunohistology - Paraffin (1) | ▪ | | | 1ug/ml - 10ug/ml |
| ELISA | | | ▪ | |
| Immunoprecipitation | ▪ | | | |
| Western Blotting | | | ▪ | |

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

(1)**This product requires protein digestion pre-treatment of paraffin sections e.g. trypsin or pronase.**

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| **Target Species** | Human |
| **Species Cross Reactivity** | Reacts with: Dog<br>**N.B.** Antibody reactivity and working conditions may vary between species. |
| **Product Form** | Purified IgG - liquid |
| **Preparation** | Purified IgG prepared by affinity chromatography on Protein A |
| **Buffer Solution** | Tris buffered saline |
| **Preservative Stabilisers** | 0.09% Sodium Azide |
| **Approx. Protein Concentrations** | IgG concentration 1.0 mg/ml |

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| **Immunogen** | CD40 Ig(Fc) fusion protein containing the EC region of human CD40 and Fc region of human IgG. |
| **External Database Links** | **UniProt:**<br>P25942 Related reagents<br><br>**Entrez Gene:**<br>958 CD40 Related reagents |
| **Synonyms** | TNFRSF5 |
| **Fusion Partners** | Spleen cells from immunised BALB/c mice were fused with cells of the mouse NS1 myeloma cell line. |
| **Specificity** | **Mouse anti Human CD40 antibody, clone LOB7/6** recognizes the human CD40 cell surface antigen, a 48kDa glycoprotein expressed by B lymphocytes and weakly by some monocytes.<br><br>CD40 is involved in the process of B cell selection in germinal centres and is vital in T cell-B cell interactions. |
| **Flow Cytometry** | Use 10ul of the suggested working dilution to label $10^6$ cells in 100ul. |
| **Histology Positive Control Tissue** | Human Tonsil |
| **References** | 1. Quadbeck, B. *et al.* (2002) Maturation of thyroidal dendritic cells in Graves' disease. Scand J Immunol. 55 (6): 612-20.<br>2. Kirsch, B. M. *et al* . (2005) The active metabolite of leflunomide, A77 1726, interferes with dendritic cell function. Arthritis Res. Ther. 7: R694-R703.<br>3. Cheadle, E. *et al*. (2003) *Mycobacterium bovis* bacillus Calmette-Guerin-infected dendritic cells potently activate autologous T cells via a B7 and interleukin-12-dependent mechanism. Immunology.108: 79-88.<br>4. Carpenter, E.L. *et al*. (2009) Activation of human B cells by the agonist CD40 antibody CP-870,893 and augmentation with simultaneous toll-like receptor 9 stimulation. J Transl Med. 7: 93.<br>5. Garcia-Nieto, S. *et al*. (2010) Laminin and Fibronectin Treatment Leads to Generation of Dendritic Cells with Superior Endocytic Capacity. PLoS ONE. 5: 1-10.<br>6. Wang, Y.S. *et al*. (2007) Characterization of canine monocyte-derived dendritic cells with phenotypic and functional differentiation. Can J Vet Res. 71: 165-74.<br>7. Vlachoyiannopoulos, P.G. *et al.* (2004) Anti-CD40 antibodies in antiphospholipid syndrome and systemic lupus erythematosus. Thromb Haemost. 92: 1303-11.<br>8. Leigh, J.E. *et al.* (2006) Characterization of the immune status of CD8+ T cells in oral lesions of human immunodeficiency virus-infected persons with oropharyngeal Candidiasis. Clin Vaccine Immunol. 13: 678-83.<br>9. Newman, K.C. *et al.* (2006) Cross-talk with myeloid accessory cells regulates human natural killer cell interferon-gamma responses to malaria. PLoS Pathog. 2: e118.<br>10. Kuijf, M.L. *et al.* (2010) TLR4-mediated sensing of *Campylobacter jejuni* by dendritic cells is determined by sialylation. J Immunol. 185: 748-55.<br>11. Huizinga R *et al.* (2015) Innate Immunity to *Campylobacter jejuni* in Guillain-Barré Syndrome. Ann Neurol. 78 (3): 343-54.<br>12. Yıldırım C *et al.* (2015) Galectin-2 induces a proinflammatory, anti-arteriogenic phenotype in monocytes and macrophages. PLoS One. 10 (4): e0124347.<br>13. Brencicova, E. *et al.* (2017) Interleukin-10 and prostaglandin E2 have complementary but |

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| | distinct suppressive effects on Toll-like receptor-mediated dendritic cell activation in ovarian carcinoma. PLoS One. 12 (4): e0175712. |
| **Storage** | Store at +4°C or at -20°C if preferred.<br><br>This product should be stored undiluted.<br><br>Storage in frost free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use. |
| **Shelf Life** | 18 months from date of despatch. |
| **Health And Safety Information** | Material Safety Datasheet documentation #10057 available at:<br>10057: https://www.bio-rad-antibodies.com/uploads/MSDS/10057.pdf |
| **Regulatory** | For research purposes only |

# Related Products

## Recommended Secondary Antibodies

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| Goat Anti Mouse IgG (STAR76...) | RPE |
| Goat Anti Mouse IgG IgA IgM (STAR87...) | Alk. Phos., HRP |
| Rabbit Anti Mouse IgG (STAR9...) | FITC |
| Goat Anti Mouse IgG (STAR77...) | HRP |
| Rabbit Anti Mouse IgG (STAR12...) | RPE |
| Goat Anti Mouse IgG (Fc) (STAR120...) | FITC, HRP |
| Rabbit Anti Mouse IgG (STAR8...) | DyLight®800 |
| Goat Anti Mouse IgG (STAR70...) | FITC |
| Human Anti Mouse IgG2a (HCA037...) | FITC, HRP |
| Rabbit Anti Mouse IgG (STAR13...) | HRP |
| Goat Anti Mouse IgG (H/L) (STAR117...) | Alk. Phos., DyLight®488, DyLight®549, DyLight®649, DyLight®680, DyLight®800, FITC, HRP |

## Recommended Negative Controls

MOUSE IgG2a NEGATIVE CONTROL (MCA929)


**North & South America** Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com

**Worldwide** Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com

**Europe** Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com


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