

Datasheet: MCA1396D550

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| Description: | MOUSE ANTI HISTIDINE TAG:DyLight®550 |
| Specificity: | HISTIDINE TAG |
| Format: | DyLight®550 |
| Product Type: | Monoclonal Antibody |
| Clone: | AD1.1.10 |
| Isotype: | IgG1 |
| Quantity: | 0.1 mg |

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 |
|--------------------|-----|----|----------------|--------------------|
| Flow Cytometry | ▪ | | | |
| Western Blotting | ▪ | | | 1/1,000 - 1/10,000 |
| Immunofluorescence | ▪ | | | 1/50 - 1/200 |

Where this product 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 product for use in their own system using appropriate negative/positive controls.

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| Target Species | Synthetic Peptide | | |
| Product Form | Purified IgG conjugated to DyLight® 550 - liquid | | |
| Max Ex/Em | Fluorophore | Excitation Max (nm) | Emission Max (nm) |
| | Dylight®550 | 562 | 576 |
| Preparation | Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant | | |
| Preservative Stabilisers | 0.09% sodium azide (NaN ₃) | | |
| Approx. Protein Concentrations | IgG concentration 1.0 mg/ml | | |
| Immunogen | PAX6 transcription factor linked to histidine tag. | | |

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| Fusion Partners | <p>Spleen cells from immunized Balb/c mice were fused with cells of the mouse NS1 myeloma cell line.</p> |
| Specificity | <p>Mouse anti Histidine tag antibody, clone AD1.1.10 recognizes proteins and peptides containing the motif H-H-H-H-H and is therefore of value in detecting proteins containing histidine tags. Clone AD1.1.10 has been used to detect and purify histidine-tagged proteins expressed in mammalian (Hoffmann <i>et al.</i> 2007) and Hwang <i>et al.</i> 2008) and non-mammalian (Zheng <i>et al.</i> 2007; Gunnarsen <i>et al.</i> 2010; and de Vooght <i>et al.</i> 2012) cell lines.</p> <p>In Western blotting of bacterial extracts the antibody has been shown not to cross-react with any endogenous products, although some cross-reactivity may be seen with extracts of insect or mammalian cells.</p> <p>This antibody is routinely tested in Western blotting on histidine tagged recombinant proteins and reacts against all histidine-tagged proteins so far tested.</p> |
| References | <ol style="list-style-type: none"> 1. Els Conrath, K. <i>et al.</i> (2001) Camel single-domain antibodies as modular building units in bispecific and bivalent antibody constructs. J Biol Chem. 276 (10): 7346-50. 2. Suen, J.L. <i>et al.</i> (2001) Characterization of self-T-cell response and antigenic determinant of U1A protein with bone marrow-derived dendritic cells in NZB x NZW F₁ mice. Immunol. 103: 301-309. 3. Hoffmann, S.C. <i>et al.</i> (2007) Identification of CLEC12B, an inhibitory receptor on myeloid cells. J Biol Chem. 282 (31): 22370-5. 4. Zheng, J. <i>et al.</i> (2007) Serum from mice immunized in the context of Treg inhibition identifies DEK as a neuroblastoma tumor antigen. BMC Immunol. 8: 4. 5. Bahi, A. & Dreyer, J.L. (2008) Overexpression of plasminogen activators in the nucleus accumbens enhances cocaine-, amphetamine- and morphine-induced reward and behavioral sensitization. Genes Brain Behav. 7 (2): 244-56. 6. Wrighton, K.H. <i>et al.</i> (2009) Transforming Growth Factor {beta} Can Stimulate Smad1 Phosphorylation Independently of Bone Morphogenetic Protein Receptors. J Biol Chem. 284 (15): 9755-63. 7. Diefenbacher, M. <i>et al.</i> (2011) The Dsl1 Tethering Complex Actively Participates in Soluble NSF (N-Ethylmaleimide-sensitive Factor) Attachment Protein Receptor (SNARE) Complex Assembly at the Endoplasmic Reticulum in <i>Saccharomyces cerevisiae</i>. J Biol Chem. 286: 25027-38. 8. Alvarez, M.M. <i>et al.</i> (2010) Specific recognition of influenza A/H1N1/2009 antibodies in human serum: a simple virus-free ELISA method. PLoS One. 5: e10176. 9. Bahi, A. <i>et al.</i> (2008) The role of tissue-type plasminogen activator system in amphetamine-induced conditional place preference extinction and reinstatement. Neuropsychopharmacology. 33: 2726-34. 10. Gunnarsen, K.S. <i>et al.</i> (2010) Periplasmic expression of soluble single chain T cell receptors is rescued by the chaperone FkpA. BMC Biotechnol. 10: 8. 11. Hwang, H.Y. <i>et al.</i> (2008) Highly specific inhibition of C1q globular-head binding to human IgG: a novel approach to control and regulate the classical complement pathway using an engineered single chain antibody variable fragment. Mol Immunol. 45: 2570-80. 12. De Vooght, L. <i>et al.</i> (2012) Expression and extracellular release of a functional |

- anti-trypanosome Nanobody® in *Sodalis glossinidius*, a bacterial symbiont of the tsetse fly. [Microb Cell Fact. 11: 23.](#)
13. Saerens, D. *et al.* (2004) Single domain antibodies derived from dromedary lymph node and peripheral blood lymphocytes sensing conformational variants of prostate-specific antigen. [J Biol Chem. 279 \(50\): 51965-72.](#)
 14. Than, N.G. *et al.* (2014) Evolutionary origins of the placental expression of chromosome 19 cluster galectins and their complex dysregulation in preeclampsia. [Placenta. 35 \(11\): 855-65.](#)
 15. Elders RC *et al.* (2014) Recombinant canine IgE Fc and an IgE Fc-TRAIL fusion protein bind to neoplastic canine mast cells. [Vet Immunol Immunopathol. 159 \(1-2\): 29-40.](#)
 16. Chin, S.E. *et al.* (2015) Isolation of high-affinity, neutralizing anti-idiotypic antibodies by phage and ribosome display for application in immunogenicity and pharmacokinetic analyses. [J Immunol Methods. 416: 49-58.](#)
 17. Peyrassol, X. *et al.* (2016) Development by Genetic Immunization of Monovalent Antibodies (Nanobodies) Behaving as Antagonists of the Human ChemR23 Receptor. [J Immunol. 196 \(6\): 2893-901.](#)
 18. Kim H & Loparo JJ (2016) Multistep assembly of DNA condensation clusters by SMC. [Nat Commun. 7: 10200.](#)
 19. Borg M *et al.* (2014) A novel interaction between Rab7b and actomyosin reveals a dual role in intracellular transport and cell migration. [J Cell Sci. 127 \(Pt 22\): 4927-39.](#)
 20. De Meyer, T. *et al.* (2015) Comparison of VHH-Fc antibody production in *Arabidopsis thaliana*, *Nicotiana benthamiana* and *Pichia pastoris*. [Plant Biotechnol J. 13 \(7\): 938-47.](#)
 21. Siddiqui AA *et al.* (2015) Humoral immune responses to a recombinant *Plasmodium vivax* tryptophan-rich antigen among *Plasmodium vivax*-infected patients and its localization in the parasite. [Appl Biochem Biotechnol. 175 \(4\): 2166-77.](#)
 22. Warnecke, A. *et al.* (2017) Nitration of MOG diminishes its encephalitogenicity depending on MHC haplotype. [J Neuroimmunol. 303: 1-12.](#)
 23. Bertucci, A. *et al.* (2011) A new coral carbonic anhydrase in *Stylophora pistillata*. [Mar Biotechnol \(NY\). 13 \(5\): 992-1002.](#)
 24. Boujon, C.L. *et al.* (2017) Development and validation of an immunohistochemistry procedure for the detection of a neurotropic bovine astrovirus. [J Virol Methods. 239: 26-33.](#)
 25. Cartwright, S.P. *et al.* (2017) Rapid expression and purification of the hepatitis delta virus antigen using the methylotropic yeast *Pichia pastoris*. [BMC Res Notes. 10 \(1\): 340.](#)
 26. Thanongsaksrikul, J. *et al.* (2018) Identification and production of mouse scFv to specific epitope of enterovirus-71 virion protein-2 (VP2). [Arch Virol. 163 \(5\): 1141-1152.](#)
 27. Gunnarsen, K.S. *et al.* (2018) Soluble T-cell receptor design influences functional yield in an E. coli chaperone-assisted expression system. [PLoS One. 13 \(4\): e0195868.](#)
 28. Ascione, A. *et al.* (2019) Development of a novel human phage display-derived anti-LAG3 scFv antibody targeting CD8⁺ T lymphocyte exhaustion. [BMC Biotechnol. 19 \(1\): 67.](#)
 29. Zoccola, D. *et al.* (2017) Structural and functional analysis of coral Hypoxia Inducible Factor. [PLoS One. 12 \(11\): e0186262.](#)
 30. Kimura, K. *et al.* (2021) Overexpression of human BAG3^{P209L} in mice causes restrictive cardiomyopathy. [Nat Commun. 12 \(1\): 3575.](#)
 31. Dongdem, J.T. *et al.* (2021) Modification of small ubiquitin-related modifier 2 (SUMO2) by phosphoubiquitin in HEK293T cells. [Proteomics. 21 \(15\): e2000234.](#)

32. Chuang, H.C. *et al.* (2021) Effect of cell-permeable grouper Manganese Superoxide Dismutase on environmental stress in fish. [Protein Expr Purif. 187: 105951.](#)
33. Cheng, C.M. *et al.* (2021) Heterologous expression of bacterial CotA-laccase, characterization and its application for biodegradation of malachite green. [Bioresour Technol. 340: 125708.](#)
34. De Vooght, L. *et al.* (2022) Targeting the tsetse-trypanosome interplay using genetically engineered *Sodalis glossinidius*.. [PLoS Pathog. 18 \(3\): e1010376.](#)
35. Minami, S.A. *et al.* (2022) Production of novel SARS-CoV-2 Spike truncations in Chinese hamster ovary cells leads to high expression and binding to antibodies. [Biotechnol J. 17 \(9\): e2100678.](#)
36. Chen, Y.J. *et al.* (2023) A non-genetic engineering platform for rapidly generating and expanding cancer-specific armed T cells. [J Biomed Sci. 30 \(1\): 35.](#)
37. Boudkkazi, S. *et al.* (2023) A Noelin-organized extracellular network of proteins required for constitutive and context-dependent anchoring of AMPA-receptors. [Neuron. 111 \(16\): 2544-56.e9.](#)
38. Nguyen, H.M. *et al.* (2023) Heterologous expression and characterization of a MoAA16 polysaccharide monooxygenase from the rice blast fungus *Magnaporthe oryzae* [Electronic Journal of Biotechnology. 66: 1-16.](#)
39. Rossey, I. *et al.* (2021) A vulnerable, membrane-proximal site in human respiratory syncytial virus F revealed by a prefusion-specific single-domain antibody. [J Virol. 95 \(11\): e02279-20.](#)
40. Khosravi, M. *et al.* (2016) Canine Distemper Virus Fusion Activation: Critical Role of Residue E123 of CD150/SLAM. [J Virol. 90 \(3\): 1622-37.](#)
41. Tamaki, Y. *et al.* (2024) Shiga toxin type 2 B subunit protects mice against toxin challenge when leashed and bundled by a stable pentameric coiled-coil molecule. [Vaccine. Feb 15 S0264-410X\(24\)00129-4. \[Epub ahead of print\].](#)
42. Kimura, T. *et al.* (2024) Quantification of lipoprotein lipase in mouse plasma with a sandwich enzyme-linked immunosorbent assay. [J Lipid Res. 65 \(4\): 100532.](#)
43. Wu, M.C. *et al.* (2022) Recombinant suilysin of *Streptococcus suis* enhances the protective efficacy of an engineered *Pasteurella multocida* toxin protein. [Res Vet Sci. 151: 175-183.](#)
44. Ramou, I. *et al.* (2025) Expression and purification of an activated Orexin receptor 1-G-protein complex [Protein Expression and Purification. : 106660.](#)
45. Paiva, S.C. *et al.* (2025) Exploring the Structure and Nucleic Acid Interactions of the *Leishmania* sp. Telomerase Reverse Transcriptase N-Terminal Region. [Arch Biochem Biophys. : 110289.](#)
46. Hayes JWP, Edwards JC, Ramirez Valdez K *et al.* (0) Evaluation of the contribution of the minor envelope complex glycoprotein 3 to the porcine reproductive and respiratory syndrome virus 1 neutralizing antibody response [version 1]. [VeriXiv 2025, 2:139](#)

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 |
| Acknowledgements | DyLight is a trademark of Thermo Fisher Scientific Inc. and its subsidiaries. His-tag is a registered trademark of EMD Biosciences. |
| Health And Safety Information | Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/MCA1396D550 |
| Regulatory | For research purposes only |

Product inquiries: www.bio-rad-antibodies.com/technical-support

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