

## Datasheet: MCA1396A

**BATCH NUMBER 166054**

<b>Description:</b>	MOUSE ANTI HISTIDINE TAG:ALK.PHOS.
<b>Specificity:</b>	HISTIDINE TAG
<b>Format:</b>	Alk. Phos.
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	AD1.1.10
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	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](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry				
Immunohistology - Frozen				
Immunohistology - Paraffin				
ELISA	■			1/20 - 1/1000
Immunoprecipitation				
Western Blotting	■			1/1000 - 1/5000

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.

<b>Target Species</b>	Synthetic Peptide
<b>Product Form</b>	Purified IgG conjugated to Alkaline Phosphatase - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.09% sodium azide (NaN <sub>3</sub> )
<b>Approx. Protein</b>	IgG concentration 0.5 mg/ml

## Concentrations

Immunogen	PAX6 transcription factor linked to histidine tag.
RRID	AB_1605025
Fusion Partners	Spleen cells from immunized Balb/c mice were fused with cells of the mouse NS1 myeloma cell line.
Specificity	<p><b>Mouse anti Histidine tag antibody, clone AD1.1.10</b> recognizes proteins and peptides containing the motif H-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 <a href="#">de Vooght <i>et al.</i> 2012</a>) 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"><li>1. Els Conrath, K. <i>et al.</i> (2001) Camel single-domain antibodies as modular building units in bispecific and bivalent antibody constructs. <a href="#">J Biol Chem. 276 (10): 7346-50.</a></li><li>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 F<sub>1</sub> mice. <a href="#">Immunol. 103: 301-309.</a></li><li>3. Hoffmann, S.C. <i>et al.</i> (2007) Identification of CLEC12B, an inhibitory receptor on myeloid cells. <a href="#">J Biol Chem. 282 (31): 22370-5.</a></li><li>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. <a href="#">BMC Immunol. 8: 4.</a></li><li>5. Bahi, A. &amp; Dreyer, J.L. (2008) Overexpression of plasminogen activators in the nucleus accumbens enhances cocaine-, amphetamine- and morphine-induced reward and behavioral sensitization. <a href="#">Genes Brain Behav. 7 (2): 244-56.</a></li><li>6. Wrighton, K.H. <i>et al.</i> (2009) Transforming Growth Factor {beta} Can Stimulate Smad1 Phosphorylation Independently of Bone Morphogenic Protein Receptors. <a href="#">J Biol Chem. 284 (15): 9755-63.</a></li><li>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>. <a href="#">J Biol Chem. 286: 25027-38.</a></li><li>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. <a href="#">PLoS One. 5: e10176.</a></li><li>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. <a href="#">Neuropsychopharmacology. 33: 2726-34.</a></li><li>10. Gunnarsen, K.S. <i>et al.</i> (2010) Periplasmic expression of soluble single chain T cell</li></ol>

- receptors is rescued by the chaperone FkpA. [BMC Biotechnol.](#) **10**: 8.
11. Hwang, H.Y. et al. (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. et al. (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-idiotype 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<sup>+</sup> 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<sup>P209L</sup> 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.](#)

<b>Storage</b>	Store at +4°C. DO NOT FREEZE. This product should be stored undiluted. Should this product contain a precipitate we recommend microcentrifugation before use.
<b>Guarantee</b>	12 months from date of despatch
<b>Acknowledgements</b>	His-tag is a registered trademark of EMD Biosciences
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10040 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA1396A">https://www.bio-rad-antibodies.com/SDS/MCA1396A</a> 10040
<b>Regulatory</b>	For research purposes only

**North & South America** Tel: +1 800 265 7376  
Fax: +1 919 878 3751  
Email: [antibody\\_sales\\_us@bio-rad.com](mailto: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](mailto: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](mailto:antibody_sales_de@bio-rad.com)

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)  
'M419906:230628'

**Printed on 15 Apr 2024**

---

© 2024 Bio-Rad Laboratories Inc | [Legal](#) | [Imprint](#)