

## Datasheet: MCA1360B

**BATCH NUMBER 164559**

<b>Description:</b>	MOUSE ANTI V5-TAG:Biotin
<b>Specificity:</b>	V5-TAG
<b>Other names:</b>	PK-TAG
<b>Format:</b>	Biotin
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	SV5-Pk1
<b>Isotype:</b>	IgG2a
<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	▪			1/250 - 1/2500
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>	Viral
<b>Product Form</b>	Purified IgG conjugated to biotin - 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 Concentrations</b>	IgG concentration 1.0 mg/ml
<b>Immunogen</b>	Paramyxovirus Simian-Virus 5 (SV5)
<b>External Database Links</b>	<b>UniProt:</b> <a href="#">P11207</a> <a href="#">Related reagents</a>
<b>RRID</b>	AB_324248
<b>Fusion Partners</b>	Spleen cells from immunized BALB/c mice were fused with cells of the SP2/0 Ag14 myeloma cell line.
<b>Specificity</b>	<b>Mouse anti V5-Tag, clone SV5-Pk1</b> recognizes the sequence, IPNPLLGLD, present on the P/V proteins of the paramyxovirus, SV5 ( <a href="#">Dunn et al.1999</a> ). Clone SV5-Pk1 is used to detect recombinant proteins, some of which include transmembrane and secreted proteins, that have labeled with tags containing this sequence ( <a href="#">Randall et al.1993</a> and <a href="#">Zhao et al. 2005</a> ).
<b>References</b>	<ol style="list-style-type: none"> <li>1. Southern, J.A. <i>et al.</i> (1991) Identification of an epitope on the P and V proteins of simian virus 5 that distinguishes between two isolates with different biological characteristics. <a href="#">J Gen Virol. 72 ( Pt 7): 1551-7.</a></li> <li>2. Randall, R.E. <i>et al.</i> (1994) Purification of antibody-antigen complexes containing recombinant SIV proteins: comparison of antigen and antibody-antigen complexes for immune priming. <a href="#">Vaccine. 12 (4): 351-8.</a></li> <li>3. Hirst, K. <i>et al.</i> (1994) The transcription factor, the Cdk, its cyclin and their regulator: directing the transcriptional response to a nutritional signal. <a href="#">EMBO J. 13 (22): 5410-20.</a></li> <li>4. Rodriguez, M.S. <i>et al.</i> (1995) Inducible degradation of I kappa B alpha in vitro and in vivo requires the acidic C-terminal domain of the protein. <a href="#">Mol Cell Biol. 15 (5): 2413-9.</a></li> <li>5. Jaffray, E. <i>et al.</i> (1995) Domain organization of I kappa B alpha and sites of interaction with NF-kappa B p65. <a href="#">Mol Cell Biol. 15 (4): 2166-72.</a></li> <li>6. Hanke, T. <i>et al.</i> (1995) Attachment of an oligopeptide epitope to the C-terminus of recombinant SIV gp160 facilitates the construction of SMAA complexes while preserving CD4 binding. <a href="#">J Virol Methods. 53 (1): 149-56.</a></li> <li>7. Dunn, C. <i>et al.</i> (1999) Fine mapping of the binding sites of monoclonal antibodies raised against the Pk tag. <a href="#">J Immunol Methods. 224 (1-2): 141-50.</a></li> <li>8. Young, D.F. <i>et al.</i> (2001) Single amino acid substitution in the V protein of simian virus 5 differentiates its ability to block interferon signaling in human and murine cells. <a href="#">J Virol. 75: 3363-70.</a></li> <li>9. Sanchez Garcia, J. <i>et al.</i> (2004) The C-terminal zinc finger of the catalytic subunit of DNA polymerase delta is responsible for direct interaction with the B-subunit. <a href="#">Nucleic Acids Res. 32 (10): 3005-16.</a></li> <li>10. Zhao, C. <i>et al.</i> (2005) Human ISG15 conjugation targets both IFN-induced and constitutively expressed proteins functioning in diverse cellular pathways. <a href="#">Proc Natl Acad Sci U S A. 102:10200-5</a></li> <li>11. Hornemann, T. <i>et al.</i> (2006) Cloning and initial characterization of a new subunit for mammalian serine-palmitoyltransferase. <a href="#">J Biol Chem. 281: 37275-81.</a></li> </ol>

12. Chew, E.H. and Hagen, T. (2007) Substrate-mediated regulation of cullin neddylation. [J Biol Chem. 282: 17032-40.](#)
13. Boggio, R. *et al.* (2007) Targeting SUMO E1 to ubiquitin ligases: a viral strategy to counteract sumoylation. [J Biol Chem. 282: 15376-82.](#)
14. Létourneau, S. *et al.* (2007) Design and pre-clinical evaluation of a universal HIV-1 vaccine. [PLoS One. 2: e984.](#)
15. Hadler, K.S. *et al.* (2008) Identification of a non-purple tartrate-resistant acid phosphatase: an evolutionary link to Ser/Thr protein phosphatases? [BMC Res Notes. 1: 78.](#)
16. Chung, J.S. *et al.* (2009) The DC-HIL/syndecan-4 pathway inhibits human allogeneic T-cell responses. [Eur J Immunol. 39: 965-74.](#)
17. Stauch, B. *et al.* (2009) Model structure of APOBEC3C reveals a binding pocket modulating ribonucleic acid interaction required for encapsidation. [Proc Natl Acad Sci U S A. 106: 12079-84.](#)
18. Shi, X. and Elliott, R.M. (2009) Generation and analysis of recombinant Bunyamwera orthobunyaviruses expressing V5 epitope-tagged L proteins. [J Gen Virol. 90: 297-306.](#)
19. Schmidt, C.K. *et al.* (2009) Conserved features of cohesin binding along fission yeast chromosomes. [Genome Biol. 10: R52.](#)
20. Milward, A. *et al.* (2010) Hepatitis C virus NS5A protein interacts with beta-catenin and stimulates its transcriptional activity in a phosphoinositide-3 kinase-dependent fashion. [J Gen Virol. 91: 373-81.](#)
21. Han, M.H. *et al.* (2010) Proteomics analysis reveals overlapping functions of clustered protocadherins. [Mol Cell Proteomics. 9: 71-83.](#)
22. Lou, J.J. *et al.* (2010) Inhibition of hypoxia-inducible factor-1alpha (HIF-1alpha) protein synthesis by DNA damage inducing agents. [PLoS One. 5: e10522.](#)
23. Björk, J.K. *et al.* (2010) miR-18, a member of Oncomir-1, targets heat shock transcription factor 2 in spermatogenesis. [Development. 137\(19\):3177-84.](#)
24. Liebau, M.C. *et al.* (2011) Nephrocystin-4 regulates Pyk2-induced tyrosine phosphorylation of Nephrocystin-1 to control targeting to monocilia. [J Biol Chem. 286: 14237-45.](#)
25. Gatherer, D. *et al.* (2011) High-resolution human cytomegalovirus transcriptome. [Proc Natl Acad Sci U S A. 108: 19755-60.](#)
26. Gallazzini, M. *et al.* (2011) High NaCl-induced activation of CDK5 increases phosphorylation of the osmoprotective transcription factor TonEBP/OREBP at threonine 135, which contributes to its rapid nuclear localization. [Mol Biol Cell. 22: 703-14.](#)
27. Herskowitz, J.H. *et al.* (2011) Rho kinase II phosphorylation of the lipoprotein receptor LR11/SORLA alters amyloid-beta production. [J Biol Chem. 286 \(8\): 6117-27.](#)
28. Zhao, A. *et al.* (2011) Rapid isolation of high-affinity human antibodies against the tumor vascular marker Endosialin/TEM1, using a paired yeast-display/secretory scFv library platform. [J Immunol Methods. 363: 221-32.](#)
29. Höhne, M. *et al.* (2011) The BAR domain protein PICK1 regulates cell recognition and morphogenesis by interacting with Neph proteins. [Mol Cell Biol. 31: 3241-51.](#)
30. Kasahara, K. *et al.* (2011) Hmo1 directs pre-initiation complex assembly to an appropriate site on its target gene promoters by masking a nucleosome-free region. [Nucleic Acids Res. 39: 4136-50.](#)
31. Patino, G.A. *et al.* (2011) Voltage-Gated Na<sup>+</sup> Channel {beta}1B: A Secreted Cell Adhesion Molecule Involved in Human Epilepsy. [J Neurosci. 31: 14577-91.](#)

32. Brennan, B. *et al.* (2011) Generation and characterization of a recombinant Rift Valley fever virus expressing a V5 epitope-tagged RNA-dependent RNA polymerase. [J Gen Virol. 92 \(Pt 12\): 2906-13.](#)
33. Badrinath, S. *et al.* (2012) Position 156 influences the peptide repertoire and tapasin dependency of human leukocyte antigen B\*44 allotypes. [Haematologica. 97: 98-106.](#)
34. Mahuzier, A. *et al.* (2012) Dishevelled stabilization by the ciliopathy protein Rpgrip11 is essential for planar cell polarity. [J Cell Biol. 198: 927-40.](#)
35. Orime, K. *et al.* (2013) Trefoil Factor 2 Promotes Cell Proliferation in Pancreatic  $\beta$ -Cells through CXCR-4-Mediated ERK1/2 Phosphorylation. [Endocrinology. 154: 54-64.](#)
36. Tan, C.Y. & Hagen, T. (2013) mTORC1 dependent regulation of REDD1 protein stability. [PLoS One. 8 \(5\): e63970.](#)
37. Singh, A. *et al.* (2014) Trypanosome MKT1 and the RNA-binding protein ZC3H11: interactions and potential roles in post-transcriptional regulatory networks. [Nucleic Acids Res. 42: 4652-68.](#)
38. Mui, M.Z. *et al.* (2015) The Human Adenovirus Type 5 E4orf4 Protein Targets Two Phosphatase Regulators of the Hippo Signaling Pathway. [J Virol. 89 \(17\): 8855-70.](#)
39. Malik, S. *et al.* (2015) Adrenocorticotrophic Hormone (ACTH) Responses Require Actions of the Melanocortin-2 Receptor Accessory Protein on the Extracellular Surface of the Plasma Membrane. [J Biol Chem. 290 \(46\): 27972-85.](#)
40. Shi X *et al.* (2016) Bunyamwera orthobunyavirus glycoprotein precursor is processed by cellular signal peptidase and signal peptide peptidase. [Proc Natl Acad Sci U S A. 113 \(31\): 8825-30.](#)
41. Ng, M.Y. *et al.* (2017) Activation of MAPK/ERK signaling by *Burkholderia pseudomallei* cycle inhibiting factor (Cif). [PLoS One. 12 \(2\): e0171464.](#)
42. Voskarides, K. *et al.* (2017) A functional variant in NEPH3 gene confers high risk of renal failure in primary hematuric glomerulopathies. Evidence for predisposition to microalbuminuria in the general population. [PLoS One. 12 \(3\): e0174274.](#)
43. Carrocci, T.J. *et al.* (2017) SF3b1 mutations associated with myelodysplastic syndromes alter the fidelity of branchsite selection in yeast. [Nucleic Acids Res. 45 \(8\): 4837-52.](#)
44. Kerwin, S.K. *et al.* (2018) Regulated Alternative Splicing of *Drosophila Dscam2* Is Necessary for Attaining the Appropriate Number of Photoreceptor Synapses. [Genetics. 208 \(2\): 717-728.](#)
45. Hassler, M. *et al.* (2019) Structural Basis of an Asymmetric Condensin ATPase Cycle. [Mol Cell. 74 \(6\): 1175-1188.e9.](#)
46. Játiva, S. *et al.* (2019) Cdc14 activation requires coordinated Cdk1-dependent phosphorylation of Net1 and PP2A-Cdc55 at anaphase onset. [Cell Mol Life Sci. 76 \(18\): 3601-20.](#)
47. Chung, C.S. *et al.* (2019) Dynamic protein-RNA interactions in mediating splicing catalysis. [Nucleic Acids Res. 47 \(2\): 899-910.](#)
48. Morafraila, E.C. *et al.* (2020) Exo1 phosphorylation inhibits exonuclease activity and prevents fork collapse in rad53 mutants independently of the 14-3-3 proteins. [Nucleic Acids Res. 48 \(6\): 3053-70.](#)
49. Sabath, K. *et al.* (2020) INTS10-INTS13-INTS14 form a functional module of Integrator that binds nucleic acids and the cleavage module. [Nat Commun. 11 \(1\): 3422.](#)
50. Lee, B.G. *et al.* (2020) Cryo-EM structures of holo condensin reveal a subunit flip-flop mechanism. [Nat Struct Mol Biol. 27 \(8\): 743-51.](#)

51. Yahya, G. *et al.* (2020) Phospho-regulation of the Shugoshin - Condensin interaction at the centromere in budding yeast. [PLoS Genet. 16 \(8\): e1008569.](#)
52. Waizenegger, A. *et al.* (2020) Mus81-Mms4 endonuclease is an Esc2-STUbL-Cullin8 mitotic substrate impacting on genome integrity. [Nat Commun. 11 \(1\): 5746.](#)
53. Bajak, K. *et al.* (2020) A potential role for a novel ZC3H5 complex in regulating mRNA translation in *Trypanosoma brucei*. [J Biol Chem. 295 \(42\): 14291-304.](#)
54. Du, Z. *et al.* (2021) Structure-function analysis of oncogenic EGFR Kinase Domain Duplication reveals insights into activation and a potential approach for therapeutic targeting. [Nat Commun. 12 \(1\): 1382.](#)
55. Ivanusic, D. *et al.* (2021) The large extracellular loop of CD63 interacts with gp41 of HIV-1 and is essential for establishing the virological synapse. [Sci Rep. 11 \(1\): 10011.](#)
56. Halova, L. *et al.* (2021) A TOR (target of rapamycin) and nutritional phosphoproteome of fission yeast reveals novel targets in networks conserved in humans. [Open Biol. 11 \(4\): 200405.](#)
57. Kovács, H.A. *et al.* (2021) Characterization of the Proprotein Convertase-Mediated Processing of Peroxidasin and Peroxidasin-like Protein [Antioxidants. 10 \(10\): 1565.](#)
58. Lucas, R.M. *et al.* (2021) SCIMP is a spatiotemporal transmembrane scaffold for Erk1/2 to direct pro-inflammatory signaling in TLR-activated macrophages. [Cell Rep. 36 \(10\): 109662.](#)
59. Kao, C.Y. *et al.* (2021) Evidence for complex dynamics during U2 snRNP selection of the intron branchpoint. [Nucleic Acids Res. 49 \(17\): 9965-97.](#)
60. Forey, R. *et al.* (2021) A Role for the Mre11-Rad50-Xrs2 Complex in Gene Expression and Chromosome Organization. [Mol Cell. 81 \(1\): 183-197.e6.](#)
61. Wang, Y.T. *et al.* (2022) K48/K63-linked polyubiquitination of ATG9A by TRAF6 E3 ligase regulates oxidative stress-induced autophagy. [Cell Rep. 38 \(8\): 110354.](#)
62. Bracci, N. *et al.* (2022) Rift Valley fever virus Gn V5-epitope tagged virus enables identification of UBR4 as a Gn interacting protein that facilitates Rift Valley fever virus production. [Virology. 567: 65-76.](#)
63. Zhu, H. *et al.* (2022) A comprehensive temporal patterning gene network in *Drosophila*. medulla neuroblasts revealed by single-cell RNA sequencing. [Nat Commun. 13 \(1\): 1247.](#)
64. Choudhary, R. *et al.* (2023) Sen1 and Rrm3 ensure permissive topological conditions for replication termination. [Cell Rep. 42 \(7\): 112747.](#)
65. Chung, C.S. *et al.* (2023) An ATP-independent role for Prp16 in promoting aberrant splicing. [Nucleic Acids Res. 51 \(20\): 10815-28.](#)
66. Heuzé, J. *et al.* (2023) RNase H2 degrades toxic RNA:DNA hybrids behind stalled forks to promote replication restart. [EMBO J. : e113104.](#)
67. McConnell, A. *et al.* (2023) Determinants of Developability and Evolvability of Synthetic Mini-proteins as Ligand Scaffolds. [J Mol Biol. 435 \(24\): 168339.](#)
68. Litwin, I. *et al.* (2023) ISW1a modulates cohesin distribution in centromeric and pericentromeric regions. [Nucleic Acids Res. 51 \(17\): 9101-21.](#)
69. Sizemore, T.R. *et al.* (2023) Heterogeneous receptor expression underlies non-uniform peptidergic modulation of olfaction in *Drosophila*. [Nat Commun. 14 \(1\): 5280.](#)
70. Coombs, J.R. *et al.* (2024) NLRP12 interacts with NLRP3 to block the activation of the human NLRP3 inflammasome. [Sci Signal. 17 \(820\): eabg8145.](#)
71. Zhao, X. *et al.* (2024) Cellular targets and lysine selectivity of the HERC5 ISG15 ligase. [iScience. 27 \(2\): 108820.](#)

72. Aithal, R. *et al.* (2024) Physical interaction with Spo11 mediates the localisation of Mre11 to chromatin in meiosis and promotes its nuclease activity. [Nucleic Acids Res. 52 \(8\): 4328-43.](#)

73. Prusén Motal, I. *et al.* (2024) Sororin is an evolutionary conserved antagonist of WAPL. [Nat Commun. 15 \(1\): 4729.](#)

74. Panwar, P. *et al.* (2024) Bacterially expressed full length Hemagglutinin of Avian Influenza Virus H5N1 forms oligomers and exhibits hemagglutination. [Protein Expr Purif. : 106541.](#)

---

**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.

---

**Guarantee** 12 months from date of despatch

---

**Acknowledgements** This product is manufactured under an exclusive license from the University of St. Andrews, UK.

---

**Health And Safety Information** Material Safety Datasheet documentation #10040 available at: <https://www.bio-rad-antibodies.com/SDS/MCA1360B>  
10040

---

**Regulatory** For research purposes only

---

**North & South** Tel: +1 800 265 7376

**America** 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](https://www.bio-rad-antibodies.com/datasheets)

'M409286:221018'

**Printed on 08 Jul 2024**

---

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