

## Datasheet: MCA1360D405GA

**BATCH NUMBER 0911R**

<b>Description:</b>	MOUSE ANTI V5-TAG:DyLight®405
<b>Specificity:</b>	V5-TAG
<b>Other names:</b>	PK-TAG
<b>Format:</b>	DyLight®405
<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	▪			1/100 - 1/1000
Immunofluorescence	▪			

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 DyLight®405 - liquid		
<b>Max Ex/Em</b>	<b>Fluorophore</b>	<b>Excitation Max (nm)</b>	<b>Emission Max (nm)</b>
	DyLight®405	400	420
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant		
<b>Preservative Stabilisers</b>	0.09% Sodium Azide (NaN <sub>3</sub> )		
<b>Approx. Protein Concentrations</b>	IgG concentration 1.0mg/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_10850331
<b>Fusion Partners</b>	Spleen cells from immunised 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. Orime, K. <i>et al.</i> (2013) Trefoil Factor 2 Promotes Cell Proliferation in Pancreatic <math>\beta</math>-Cells through CXCR-4-Mediated ERK1/2 Phosphorylation. <a href="#">Endocrinology. 154: 54-64.</a></li> <li>3. Randall, R.E. <i>et al.</i> (1993) Two-tag purification of recombinant proteins for the construction of solid matrix-antibody-antigen (SMAA) complexes as vaccines. <a href="#">Vaccine. 11 (12): 1247-52.</a></li> <li>4. 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>5. 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>6. 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>7. 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>8. Chung, J.S. <i>et al.</i> (2009) The DC-HIL/syndecan-4 pathway inhibits human allogeneic T-cell responses. <a href="#">Eur J Immunol. 39: 965-74.</a></li> <li>9. 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>10. 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>11. Lou, J.J. <i>et al.</i> (2010) Inhibition of hypoxia-inducible factor-1alpha (HIF-1alpha) protein synthesis by DNA damage inducing agents. <a href="#">PLoS One. 5: e10522.</a></li> <li>12. 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>13. Herskowitz, J.H. <i>et al.</i> (2011) Rho kinase II phosphorylation of the lipoprotein receptor LR11/SORLA alters amyloid-beta production. <a href="#">J Biol Chem. 286 (8): 6117-27.</a></li> </ol>

14. 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.](#)
15. 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.](#)
16. Boggio, R. *et al.* (2007) Targeting SUMO E1 to ubiquitin ligases: a viral strategy to counteract sumoylation. [J Biol Chem. 282: 15376-82.](#)
17. 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.](#)
18. 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.](#)
19. 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.](#)
20. 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.](#)
21. Gatherer, D. *et al.* (2011) High-resolution human cytomegalovirus transcriptome. [Proc Natl Acad Sci U S A. 108: 19755-60.](#)
22. Mahuzier, A. *et al.* (2012) Dishevelled stabilization by the ciliopathy protein Rpgrip11 is essential for planar cell polarity. [J Cell Biol. 198: 927-40.](#)
23. Zhao, C. *et al.* (2005) Human ISG15 conjugation targets both IFN-induced and constitutively expressed proteins functioning in diverse cellular pathways. [Proc Natl Acad Sci U S A. 102:10200-5](#)
24. 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.](#)
25. 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.](#)
26. 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.](#)
27. Ng, M.Y. *et al.* (2017) Activation of MAPK/ERK signaling by *Burkholderia pseudomallei* cycle inhibiting factor (Cif). [PLoS One. 12 \(2\): e0171464.](#)
28. 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.](#)
29. 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.](#)
30. Carrocci, T.J. *et al.* (2017) SF3b1 mutations associated with myelodysplastic syndromes alter the fidelity of branchsite selection in yeast. [Nucleic Acids Res. 45 \(8\): 4837-4852.](#)
31. 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.](#)

32. 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.](#)
33. Tan, C.Y. & Hagen, T. (2013) mTORC1 dependent regulation of REDD1 protein stability. [PLoS One. 8 \(5\): e63970.](#)
34. Waizenegger, A. *et al.* (2020) Mus81-Mms4 endonuclease is an Esc2-STUbL-Cullin8 mitotic substrate impacting on genome integrity. [Nat Commun. 11 \(1\): 5746.](#)
35. Yahya, G. *et al.* (2020) Phospho-regulation of the Shugoshin - Condensin interaction at the centromere in budding yeast. [PLoS Genet. 16 \(8\): e1008569.](#)
36. 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.](#)
37. 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.](#)
38. 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.](#)
39. 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.](#)
40. Morafraille, 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.](#)

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**Storage**

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost-free freezers is not recommended. This product is photosensitive and should be protected from light.

Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

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**Guarantee**

12 months from date of despatch

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**Acknowledgements**

DyLight® is a trademark of Thermo Fisher Scientific Inc. and its subsidiaries.

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

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**Health And Safety Information**

Material Safety Datasheet documentation #10040 available at: <https://www.bio-rad-antibodies.com/SDS/MCA1360D405GA10040>

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**Regulatory**

For research purposes only

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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)

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