Datasheet: MCA1360A488

Description:	MOUSE ANTI V5-TAG:Alexa Fluor® 488
Specificity:	V5-TAG
Other names:	PK-TAG
Format:	ALEXA FLUOR® 488
Product Type:	Monoclonal Antibody
Clone:	SV5-Pk1
Isotype:	IgG2a
Quantity:	100 TESTS/1ml

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	▪			Neat - 1/10

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.

Target Species

Viral

Product Form

Purified IgG conjugated to Alexa Fluor® 488 - liquid

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
Alexa Fluor®488	495	519

Preparation

Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant

Buffer Solution

Phosphate buffered saline

Preservative Stabilisers

0.09% Sodium Azide (NaN_3)
1% Bovine Serum Albumin

Approx. Protein Concentrations

IgG concentration 0.05 mg/ml

Immunogen	Paramyxovirus Simian-Virus 5 (SV5)
External Database Links	**UniProt:** P11207 Related reagents
RRID	AB_770155
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the SP2/0 Ag14 myeloma cell line.
Specificity	**Mouse anti V5-Tag, clone SV5-Pk1** recognizes the sequence, IPNPLLGLD, present on the P/V proteins of the paramyxovirus, SV5 (Dunn *et al.*1999). 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 (Randall *et al.*1993 and Zhao *et al.* 2005).
Flow Cytometry	Use 10ul of the suggested working dilution to label 1x10^6 cells in 100ul.
References	1. Southern, J.A. *et al.* (1991) Identification of an epitope on the P and V proteins of simian virus 5 that distinguishes between two isolates with different biological characteristics. J Gen Virol. 72 (Pt 7): 1551-7. 2. Orime, K. *et al.* (2013) Trefoil Factor 2 Promotes Cell Proliferation in Pancreatic β-Cells through CXCR-4-Mediated ERK1/2 Phosphorylation. Endocrinology. 154: 54-64. 3. Randall, R.E. *et al.* (1993) Two-tag purification of recombinant proteins for the construction of solid matrix-antibody-antigen (SMAA) complexes as vaccines. Vaccine. 11 (12): 1247-52. 4. Randall, R.E. *et al.* (1994) Purification of antibody-antigen complexes containing recombinant SIV proteins: comparison of antigen and antibody-antigen complexes for immune priming. Vaccine. 12 (4): 351-8. 5. Hanke, T. *et al.* (1995) Attachment of an oligopeptide epitope to the C-terminus of recombinant SIV gp160 facilitates the construction of SMAA complexes while preserving CD4 binding. J Virol Methods. 53 (1): 149-56. 6. Jaffray, E. *et al.* (1995) Domain organization of I kappa B alpha and sites of interaction with NF-kappa B p65. Mol Cell Biol. 15 (4): 2166-72. 7. Rodriguez, M.S. *et al.* (1995) Inducible degradation of I kappa B alpha in vitro and in vivo requires the acidic C-terminal domain of the protein. Mol Cell Biol. 15 (5): 2413-9. 8. Chung, J.S. *et al.* (2009) The DC-HIL/syndecan-4 pathway inhibits human allogeneic T-cell responses. Eur J Immunol. 39: 965-74. 9. Hirst, K. *et al.* (1994) The transcription factor, the Cdk, its cyclin and their regulator: directing the transcriptional response to a nutritional signal. EMBO J. 13 (22): 5410-20. 10. Dunn, C. *et al.* (1999) Fine mapping of the binding sites of monoclonal antibodies raised against the Pk tag. J Immunol Methods. 224 (1-2): 141-50. 11. 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. 12. Sanchez Garcia, J. *et al.* (2004) The C-terminal zinc finger of the catalytic subunit of DNA polymerase delta is responsible for direct interaction with the B-subunit. Nucleic Acids Res. 32 (10): 3005-16.

13. 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.
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+ 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 Rpgrip1l 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) Adrenocorticotropic 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.

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.

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 #10041 available at:
10041: https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf

Regulatory

For research purposes only

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

'M365192:200529'

Printed on 07 Jan 2021