

Datasheet: MCA1946

Description:	RAT ANTI M31/HP1
Specificity:	M31
Other names:	HETEROCHROMATIN PROTEIN 1 HOMOLOG BETA
Format:	S/N
Product Type:	Monoclonal Antibody
Clone:	MAC353
Isotype:	IgG2b
Quantity:	2 ml

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			▪	
Immunohistology - Frozen	▪			Neat - 1/50
Immunohistology - Paraffin			▪	
ELISA	▪			
Immunoprecipitation	▪			
Western Blotting	▪			
Immunofluorescence	▪			
Chromatin Immunoprecipitation	▪			

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.

Target Species	Mouse
Species Cross Reactivity	<p>Reacts with: Human</p> <p>N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.</p>
Product Form	Tissue culture supernatant - liquid

Preservative Stabilisers	0.1% sodium azide (NaN ₃)
Immunogen	71 amino acid fusion protein corresponding to the C-terminal region of M31
External Database Links	<p>UniProt: P83917 Related reagents</p> <p>Entrez Gene: 12412 Cbx1 Related reagents</p>
Synonyms	Cbx
RRID	AB_2259687
Specificity	<p>Rat anti Mouse M31 antibody, clone MAC353 recognises the M31 molecule in mouse and the homologous Chromobox protein homolog 1 or HP1Hsbeta molecule in man. Rat anti Mouse M31 antibody, clone MAC353 has been reported for use in western blotting and recognises a ~26 kDa protein in murine and human nuclear extracts (Wreggett <i>et al.</i> 1994).</p>
References	<ol style="list-style-type: none"> 1. Wreggett, K.A. <i>et al.</i> (1994) A mammalian homologue of <i>Drosophila</i> heterochromatin protein 1 (HP1) is a component of constitutive heterochromatin. Cytogenet Cell Genet. 66 (2): 99-103. 2. McDowell, T.L. <i>et al.</i> (1999) Localization of a putative transcriptional regulator (ATRX) at pericentromeric heterochromatin and the short arms of acrocentric chromosomes. Proc Natl Acad Sci U S A. 96: 13983-8. 3. Baxter, J. <i>et al.</i> (2004) Histone hypomethylation is an indicator of epigenetic plasticity in quiescent lymphocytes. EMBO J. 23 (22): 4462-72. 4. Groves, I.J. and Sinclair, J.H. (2007) Knockdown of hDaxx in normally non-permissive undifferentiated cells does not permit human cytomegalovirus immediate-early gene expression. J Gen Virol. 88: 2935-40. 5. Sabbattini, P. <i>et al.</i> (2007) A novel role for the Aurora B kinase in epigenetic marking of silent chromatin in differentiated postmitotic cells. EMBO J. 26 (22): 4657-69. 6. Epsztejn-Litman, S. <i>et al.</i> (2008) <i>De novo</i> DNA methylation promoted by G9a prevents reprogramming of embryonically silenced genes. Nat Struct Mol Biol. 15: 1176-83. 7. Groves, I.J. <i>et al.</i> (2009) Lytic infection of permissive cells with human cytomegalovirus is regulated by an intrinsic 'pre-immediate-early' repression of viral gene expression mediated by histone post-translational modification. J Gen Virol. 90: 2364-74. 8. Matsui, T. <i>et al.</i> (2010) Proviral silencing in embryonic stem cells requires the histone methyltransferase ESET. Nature. 464: 927-31. 9. Abe, K. <i>et al.</i> (2011) Loss of heterochromatin protein 1 gamma reduces the number of primordial germ cells via impaired cell cycle progression in mice. Biol Reprod. 85 (5): 1013-24. 10. Frohnert, C. <i>et al.</i> (2011) SPAG4L/SPAG4L-2 are testis-specific SUN domain proteins restricted to the apical nuclear envelope of round spermatids facing the acrosome. Mol Hum Reprod. 17: 207-18.

11. Ballmer, D. *et al.* (2022) HP1 proteins regulate nucleolar structure and function by secluding pericentromeric constitutive heterochromatin. [Nucleic Acids Res. Dec 19 \[Epub ahead of print\]](#).

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
Health And Safety Information	Material Safety Datasheet documentation #10041 available at: https://www.bio-rad-antibodies.com/SDS/MCA1946 10041
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Rat IgG (STAR16...)	DyLight®800
Rabbit Anti Rat IgG (STAR17...)	FITC
Goat Anti Rat IgG (STAR69...)	FITC
Goat Anti Rat IgG (STAR73...)	RPE
Rabbit Anti Rat IgG (STAR21...)	HRP
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)	DyLight®550 , DyLight®650 , DyLight®800
Goat Anti Rat IgG (STAR131...)	Alk. Phos. , Biotin
Goat Anti Rat IgG (STAR72...)	HRP

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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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Printed on 25 Sep 2024