

## Datasheet: 4974-7808

<b>Description:</b>	MOUSE ANTI HUMAN HISTONE H1
<b>Specificity:</b>	HISTONE H1
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	AE-4
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	0.2 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
Immunohistology - Frozen (1)	▪			
Immunohistology - Paraffin	▪			
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting	▪			1/100
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 the appropriate negative/positive controls.

(1) **Acetone or PFA fixation is recommended**

<b>Target Species</b>	Human
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein G
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.09% Sodium Azide (NaN <sub>3</sub> )
<b>Carrier Free</b>	Yes

<b>Approx. Protein Concentrations</b>	IgG concentration 1.0 mg/ml
<b>Immunogen</b>	Nuclei from myeloid leukemia biopsy cells.
<b>RRID</b>	AB_2114841
<b>Specificity</b>	<p><b>Mouse anti Human Histone H1 antibody, clone AE-4</b> recognizes histone H1.</p> <p>The histone proteins serve as a structural scaffold for the organization of nuclear DNA into chromatin. In eukaryotic cells there are 4 core histone proteins, H2A, H2B, H3 and H4 that assemble to form an octamer round which the DNA is wrapped in a sequence dependant manner. The resulting complex is known as a nucleosome and is the basic subunit of chromatin. Histone H1 acts as a linker and binds to each nucleosome, and by self affinity, links these nucleosomes together resulting in the 30 nm chromatin fiber.</p> <p>In blots of rat brain homogenate a duplet is observed at ~27-29 kDa consistent with Histone H1. Speckled staining is observed in the nucleus of normal and malignant cells.</p>
<b>Histology Positive Control Tissue</b>	Tonsil
<b>References</b>	<ol style="list-style-type: none"> <li>Swindle, C.S. &amp; Engler, J.A. (1998) Association of the human papillomavirus type 11 E1 protein with histone H1. <a href="#">J Virol. 72 (3): 1994-2001.</a></li> <li>Hole, P.S. <i>et al.</i> (2010) Ras-induced reactive oxygen species promote growth factor-independent proliferation in human CD34+ hematopoietic progenitor cells. <a href="#">Blood. 115 (6): 1238-46.</a></li> <li>Thorogate, R. <i>et al.</i> (2008) A novel fluorescence-based method in forensic science for the detection of blood <i>in situ</i>. <a href="#">Forensic Sci Int Genet. 2 (4): 363-71.</a></li> <li>Morgan, R.G. <i>et al.</i> (2013) <math>\gamma</math>-Catenin is overexpressed in acute myeloid leukemia and promotes the stabilization and nuclear localization of <math>\beta</math>-catenin. <a href="#">Leukemia. 27 (2): 336-43.</a></li> <li>Alanazi, B. <i>et al.</i> (2019) Integrated nuclear proteomics and transcriptomics identifies S100A4 as a therapeutic target in acute myeloid leukemia. <a href="#">Leukemia. Oct 14 [Epub ahead of print].</a></li> </ol>
<b>Further Reading</b>	<ol style="list-style-type: none"> <li>Wang, X. <i>et al.</i> (2004) Histone H1-like protein participates in endothelial cell-specific activation of the von Willebrand factor promoter. <a href="#">Blood. 104 (6): 1725-32.</a></li> </ol>
<b>Storage</b>	<p>Store at +4°C or at -20°C if preferred.</p> <p>Storage in frost-free freezers is not recommended.</p> <p>This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.</p>
<b>Guarantee</b>	12 months from date of despatch
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10040 available at: 10040: <a href="https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf">https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf</a>

## Related Products

### Recommended Secondary Antibodies

Goat Anti Mouse IgG IgA IgM (STAR87...)	<a href="#">Alk. Phos.</a> , <a href="#">HRP</a>
Goat Anti Mouse IgG (STAR77...)	<a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR12...)	<a href="#">RPE</a>
Rabbit Anti Mouse IgG (STAR8...)	<a href="#">DyLight@800</a>
Rabbit Anti Mouse IgG (STAR13...)	<a href="#">HRP</a>
Goat Anti Mouse IgG (STAR76...)	<a href="#">RPE</a>
Goat Anti Mouse IgG (STAR70...)	<a href="#">FITC</a>
Goat Anti Mouse IgG (Fc) (STAR120...)	<a href="#">FITC</a> , <a href="#">HRP</a>
Human Anti Mouse IgG2a (HCA037...)	<a href="#">FITC</a> , <a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR9...)	<a href="#">FITC</a>
Goat Anti Mouse IgG (H/L) (STAR117...)	<a href="#">Alk. Phos.</a> , <a href="#">DyLight@488</a> , <a href="#">DyLight@680</a> , <a href="#">DyLight@800</a> , <a href="#">FITC</a> , <a href="#">HRP</a>

### Recommended Negative Controls

[MOUSE IgG2a NEGATIVE CONTROL \(MCA929\)](#)

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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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://bio-rad-antibodies.com/datasheets)  
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