

## Datasheet for 600-401-I97

## Histone H4 R3me1 Antibody

### Overview

<b>Description:</b>	Anti-Histone H4 [Monomethyl Arg3] (RABBIT) Antibody - 600-401-I97
<b>Item No.:</b>	600-401-I97
<b>Size:</b>	50 µg
<b>Applications:</b>	IF, WB
<b>Reactivity:</b>	Human, Mouse
<b>Host Species:</b>	Rabbit

### Product Details

<b>Background:</b>	Histone H4 is an 11.4 kD nuclear protein that is a component of an octamer containing pairs of each of four core histones (H2A, H2B, H3, H4). The core histones create nucleosome structure of chromosomal fiber in eukaryotes and are dynamic in gene regulation. Histone H4 shows transcriptional regulation that is both cell cycle-dependent and -independent. Histone H4 is modified by phosphorylation, acetylation, ribosylation, and methylation. Histone H4 has been shown to interact with other histone acetyltransferases, histone deacetylases, and PARP. Anti-Histone H4 are ideal for researchers interested in Chromatin Modifiers, Chromatin Research, Histones and Modified Histones, and Epigenetics research.
<b>Synonyms:</b>	rabbit anti-Histone H4 monomethyl Arg3 antibody, H4R3me1, HIST2H4B, HIST1H4H, HIST1H4I, HIST1H4J, HIST1H4K, HIST1H4L, HIST2H4, HIST2H4A, HIST1H4A, HIST1H4B, HIST1H4C, HIST1H4D, HIST1H4E, HIST1H4F, histone cluster 4, H4, histone 4, H4
<b>Host Species:</b>	Rabbit
<b>Clonality:</b>	Polyclonal
<b>Format:</b>	IgG

### Target Details

<b>Gene Name:</b>	HIST4H4
<b>Reactivity:</b>	Human, Mouse
<b>PTM Specificity:</b>	Methylation
<b>Immunogen Type:</b>	Conjugated Peptide

<b>Immunogen:</b>	Histone H4 [Monomethyl Arg3] affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic monomethylated peptide surrounding Arginine 3 of human Histone H4.
<b>Purity/Specificity:</b>	Anti-Histone H4 [Monomethyl Arg3] was affinity purified from monospecific antiserum by immunoaffinity chromatography. This antibody reacts with human Histone H4. A BLAST analysis was used to suggest cross-reactivity with Human, mouse, and rat. Predicted to react with most mammal species. Cross-reactivity with Histone H4 from other sources has not been determined.
<b>Relevant Links:</b>	<ul style="list-style-type: none"><li>• <a href="#">UniProtKB - P62805</a></li><li>• <a href="#">NCBI - NP_001029249</a></li><li>• <a href="#">GeneID - 121504</a></li></ul>

## Application Details

<b>Tested Applications:</b>	IF, WB
<b>Application Note:</b>	Anti-Histone H4 [Monomethyl Arg3] antibody is tested for Western Blot and Immunofluorescence. This antibody is useful in Dot Blot, Chromatin Immunoprecipitation, and Immunocytochemistry. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately ~13 kDa corresponding to Histone H4 protein by Western Blotting in HeLa histone prep lysate or the appropriate cell lysate or extract. Epi-Plus™ antibody production in collaboration with Novus Biologicals.
<b>Assay Dilutions:</b>	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
<b>ChIP:</b>	2-5µg/million cells
<b>IF:</b>	1:50
<b>IHC:</b>	1:50
<b>WB:</b>	1:1000

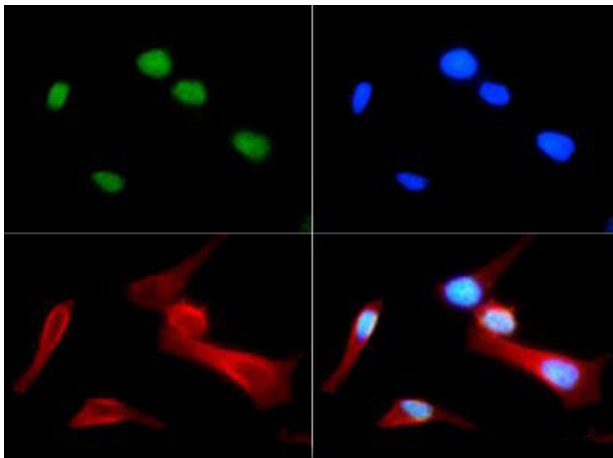
## Formulation

<b>Physical State:</b>	Liquid (sterile filtered)
<b>Concentration:</b>	0.64 mg/ml by UV absorbance at 280 nm
<b>Buffer:</b>	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
<b>Preservative:</b>	0.01% (w/v) Sodium Azide
<b>Stabilizer:</b>	30% Glycerol

## Shipping & Handling

<b>Shipping Condition:</b>	Dry Ice
<b>Storage Condition:</b>	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
<b>Expiration:</b>	Expiration date is one (1) year from date of receipt.

## Images



### Immunofluorescence Microscopy

Immunofluorescence of Rabbit Anti-Histone H4 [Monomethyl Arg3] Antibody. Tissue: Nonmitotic, prophase, and telophase HeLa cells. Fixation: 0.5% PFA. Antigen retrieval: Not required. Primary antibody: Histone H4 [Monomethyl Arg3] antibody at a 1:50 dilution for 1 h at RT. Secondary antibody: FITC secondary antibody at 1:10,000 for 45 min at RT. Localization: Histone H4 [Monomethyl Arg3] is nuclear and chromosomal. Staining: Histone H4 [Monomethyl Arg3] is expressed in green, nuclei are counterstained with DAPI (blue).

### Western Blot

Western Blot of Rabbit Anti-Histone H4 [Monomethyl Arg3] Antibody. Lane 1: NIH-3T3 histone preps. Load: 30 µg per lane. Primary antibody: Histone H4 [Monomethyl Arg3] at 1:1000 for overnight at 4°C. Secondary antibody: IRDye800™ rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: ~13 kDa. Other band(s): None.



## Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.