## Histone H1 Recombinant Monoclonal Mouse Antibody (rAE-4)



## **Product Description**

Please note that this antibody is a recombinant Mouse version of original anti-histone H1 antibody (Clone AE-4). Because the variable heavy (VH) and variable light (VL) domains are the same, recombinant antibody has the same exact reactivity as the original AE-4 MAb. There are several advantages of producing a recombinant version of a monoclonal antibody. For example, a recombinant antibody is a purer preparation of active immunoglobulin with no contaminating non-functional intact Ig or free light/heavy chains. Secondly, antibody can always be produced, even if hybridoma line is lost. Moreover, it adds the flexibility of converting the antibody to any species, isotype or format. Eukaryotic histones are basic and water-soluble nuclear proteins that form hetero-octameric nucleosome particles by wrapping 146 base pairs of DNA in a left-handed super-helical turn sequentially to form chromosomal fiber. Two molecules of each of the four core histones (H2A, H2B, H3, and H4) form the octamer; formed of two H2A-H2B dimers and two H3-H4 dimers, forming two nearly symmetrical halves by tertiary structure. Over 80% of nucleosomes contain the linker Histone H1, derived from an intronless gene that interacts with linker DNA between nucleosomes and mediates compaction into higher order chromatin. This antibody is extensively used as a pan-nuclear marker.

Primary antibodies are available purified, or with a selection of fluorescent CF® dyes and other labels. CF® dyes offer exceptional brightness and photostability. See the CF® Dye Brochure for more information. Note: Conjugates of blue fluorescent dyes like CF®405S and CF®405M are not recommended for detecting low abundance targets, because blue dyes have lower fluorescence and can give higher non-specific background than other dye colors.

Stock status: Because Biotium offers a large number of antibody and conjugation options, primary antibody conjugates may be made to order. Typical lead times are up to one week for CF® dye and biotin conjugates, and up to 2-3 weeks for fluorescent protein and enzyme conjugates. Please email <a href="mailto:order@biotium.com">order@biotium.com</a> to inquire about stock status and lead times before placing your order.

Catalog number key for antibody number 3518, Anti-Histone H1 (rAE-4)

## Product attributes

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|--|--|--|--|--|
| Antibody number                          | #3518  |  |  |  |
| Antibody reactivity (target)             | Histone H1   |  |  |  |
| Antibody type                            | Primary  |  |  |  |
| Host species                             | Mouse  |  |  |  |
| Clonality                                | Recombinant Monoclonal   |  |  |  |
| Clone                                    | rAE-4  |  |  |  |
| Isotype                                  | IgG2a, kappa   |  |  |  |
| Molecular weight                         | ~30 kDa  |  |  |  |
| Synonyms                                 | H1(0); H1.1; H1.2; H1.3; H1.4; H1.5; H10; H1A; H1F0; H1F1;<br>H1F2; H1F3; H1F4; H1F5; H1FNT; H1FO0; H1FT; H1FV;<br>H1FX; H1t; H1T2; H1X; HANP1; H1ST; H1SC; H1ST1; H1ST1H1A;<br>H1ST1H1B; H1ST1H1C; H1ST1H1D; H1ST1H1B; H1ST1H1T;<br>Oocyte-specific histone H1; Testicular H1 histone |  |  |  |
| Human gene symbol                        | H1   |  |  |  |
| Entrez gene ID                           | 3005   |  |  |  |
| SwissProt                                | Multiple   |  |  |  |
| Unigene                                  | 226117 & 97358   |  |  |  |
| Immunogen                                | Recombinant full-length human Histone H1 protein   |  |  |  |
| Verified antibody applications           | Flow (intracellular) (verified), IF (verified), IHC (FFPE) (verified), WB (verified) $$  |  |  |  |
| Antibody target cellular<br>localization | Nucleus  |  |  |  |
| Species reactivity                       | Human, Mouse, Rat  |  |  |  |
| Positive control                         | HeLa, A-431, LNCap or Jurkat cells. Breast carcinoma.  |  |  |  |
| Shipping condition                       | Room temperature   |  |  |  |
| Storage Conditions                       | Note: store BSA-free antibodies at -10 to -35°C, Store at 2 to 8°C, Protect fluorescent conjugates from light  |  |  |  |
| Regulatory status                        | For research use only (RUO)  |  |  |  |
| Antibody/conjugate formulation           | Conjugates: 0.1 mg/mL in PBS/0.1% BSA/0.05% azide, HRP conjugates: 0.1 mg/mL in PBS/0.05% BSA, Purified: 0.2 mg/mL in PBS/0.05% BSA, Free: 1 mg/mL PBS without azide   |  |  |  |
| Shelf life                               | Guaranteed for at least 24 months from date of receipt when stored as recommended  |  |  |  |
| Product origin                           | Product may contain either bovine serum albumin (BSA) from bovine serum (Bos taurus), or recombinant BSA produced in Chinese hamster ovary cells. Inquire for the specific lot.  |  |  |  |

| Antibody # prefix | Conjugation           | Ex/Em (nm) | Laser line | Detection channel           | Dye Features     |
|-------------------|-----------------------|------------|------------|-----------------------------|------------------|
| BNC04             | CF®405S               | 404/431    | 405        | DAPI (microscopy),<br>AF405 | CF®405S Features |
| BNC88             | CF®488A               | 490/515    | 488        | GFP, FITC                   | CF®488A Features |
| BNC68             | CF®568                | 562/583    | 532, 561   | RFP, TRITC                  | CF®568 Features  |
| BNC94             | CF®594                | 593/614    | 561        | Texas Red®                  | CF®594 Features  |
| BNC40             | CF®640R               | 642/662    | 633-640    | Cy®5                        | CF®640R Features |
| BNC47             | CF®647                | 650/665    | 633-640    | Cy®5                        | CF®647 Features  |
| BNC74             | CF®740                | 742/767    | 633-685    | 775/50                      | CF®740 Features  |
| BNCB              | Biotin                | N/A        | N/A        | N/A                         |                  |
| BNUB              | Purified              | N/A        | N/A        | N/A                         |                  |
| BNUM              | Purified,<br>BSA-free | N/A        | N/A        | N/A                         |                  |

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