

### 36-2454: Anti-Histone H1 (Pan Nuclear Marker) Monoclonal Antibody(Clone: rAE-4)

<b>Clonality :</b>	Monoclonal
<b>Clone Name :</b>	rAE-4
<b>Application :</b>	WB,FACS,IF,IHC
<b>Reactivity :</b>	Human, Mouse, Rat
<b>Gene :</b>	H1
<b>Gene ID :</b>	3005
<b>Alternative Name :</b>	His1; HisC; HIST1; HIST1H1A; HIST1H1B; HIST1H1C; HIST1H1D; HIST1H1E; HIST1H1T; Oocyte-specific histone H1; Testicular H1 histone
<b>Isotype :</b>	Mouse IgG2a, kappa
<b>Immunogen Information :</b>	Recombinant full-length human Histone H1 protein

#### 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.

#### Product Info

<b>Amount :</b>	20 µg / 100 µg
<b>Content :</b>	200 µg/ml of recombinant MAb Purified by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.
<b>Storage condition :</b>	Antibody with azide - store at 2 to 8°C. Antibody without azide - store at -20 to -80°C. Antibody is stable for 24 months. Non-hazardous.

#### Application Note

Western Blot (1-2ug/ml); Flow Cytometry (1-2ug/million cells); Immunofluorescence (1-2ug/ml); Immunohistochemistry (Formalin-fixed) (1-2ug/ml for 30 minutes at RT),(Staining of formalin-fixed tissues requires heating tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 45 min at 95°C followed by cooling at RT for 20 minutes);

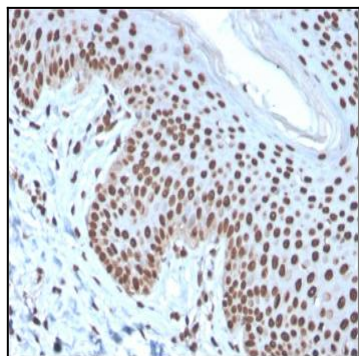


Fig. 1: Formalin-fixed, paraffin-embedded human Basal Cell Carcinoma stained with Histone H1 Mouse Recombinant Monoclonal Antibody (rAE-4).

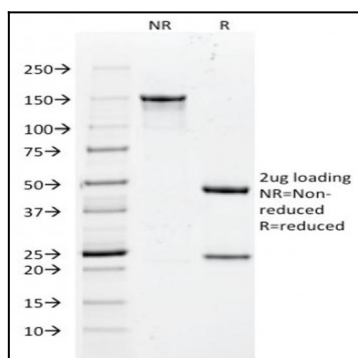


Fig. 2: SDS-PAGE Analysis Purified Histone H1 Mouse Recombinant Monoclonal Antibody (rAE-4). Confirmation of Integrity and Purity of Antibody.

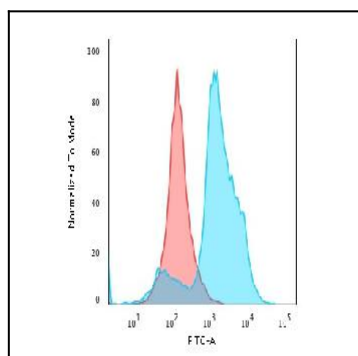


Fig. 3: Flow Cytometric Analysis of paraformaldehyde-fixed HeLa cells using Histone H1 Mouse Recombinant Monoclonal Antibody (rAE-4) followed by goat anti-Mouse IgG-CF488 (Blue); Isotype Control (Red).

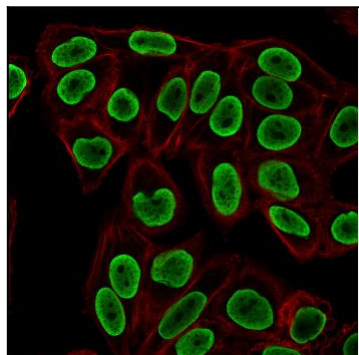


Fig. 4: Immunofluorescent staining of HeLa cells using Histone H1 Mouse Monoclonal Antibody (rAE-4) followed by goat anti-Mouse IgG conjugated to CF488 (green). Phalloidin is used to label cellmembrane (red).