

DESCRIPTION

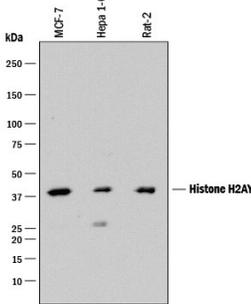
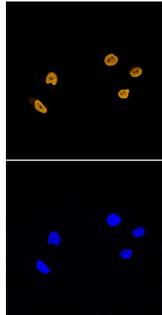
Species Reactivity	Human/Mouse/Rat
Specificity	Detects human Histone H2AY in direct ELISAs and Western blots.
Source	Monoclonal Mouse IgG ₁ Clone # 866416
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human Histone H2AY Gly230-Thr348 Accession # O75367
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	2 µg/mL	See Below
Immunocytochemistry	8-25 µg/mL	See Below

DATA

<p>Western Blot</p>  <p>Detection of Human, Mouse, and Rat Histone H2AY by Western Blot. Western blot shows lysates of MCF-7 human breast cancer cell line, Hepa 1-6 mouse hepatoma cell line, and Rat-2 rat embryonic fibroblast cell line. PVDF membrane was probed with 2 µg/mL of Mouse Anti-Human/Mouse/Rat Histone H2AY Monoclonal Antibody (Catalog # MAB8318) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for Histone H2AY at approximately 40 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	<p>Immunocytochemistry</p>  <p>Histone H2AY in HeLa Human Cell Line. Histone H2AY was detected in immersion fixed HeLa human cervical epithelial carcinoma cell line using Mouse Anti-Human/Mouse/Rat Histone H2AY Monoclonal Antibody (Catalog # MAB8318) at 25 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (yellow, upper panel; Catalog # NL007) and counterstained with DAPI (blue, lower panel). Specific staining was localized to nuclei. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.</p>
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PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Histone H2AY, also known as macro H2A1 (MH2A1) and H2AFY, is a 40 kDa variant of the histone family, basic nuclear proteins responsible for the nucleosome structure of the chromosomal fiber in eukaryotes. Ubiquitously expressed, H2AY replaces conventional H2A histones in a subset of nucleosomes, where it represses transcription and participates in stable X chromosome inactivation. H2AY expression is also enriched in senescence-associated heterochromatin. Alternative splicing creates multiple transcript variants, encoding three distinct isoforms. H2AY expressed in blood has been identified as a potential biomarker associated with the activity and therapeutic response of Huntington disease, an autosomal dominant neurodegenerative disorder. Over amino acids 230-348, human H2AY shares 98% identity with mouse and rat H2AY.