

DESCRIPTION

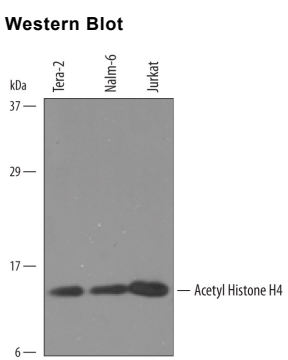
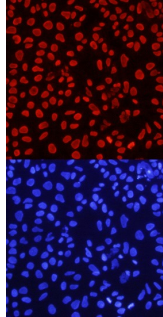
Species Reactivity	Human/Mouse
Specificity	Detects immunogen in direct ELISAs and human Acetyl Histone H4 in Western blots. Reactivity with non-acetylated peptide was removed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Tetrahymena pyriformis acetylated Histone H4 synthetic peptide AGGKGGKGMGKVGAKRHSK Accession # P02310
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 either lyophilized or 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	1 µg/mL	See Below
Immunocytochemistry	5-15 µg/mL	See Below

DATA

<p>Western Blot</p>  <p>Detection of Human Acetyl Histone H4 by Western Blot. Western blot shows lysates of Tera-2 human embryonic lung carcinoma cell line, Nalm-6 human Pre-B acute lymphocytic leukemia cell line, and Jurkat human acute T cell leukemia cell line. PVDF Membrane was probed with 1 µg/mL of Sheep Anti-Human Acetyl Histone H4 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5215) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for Acetyl Histone H4 at approximately 12 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.</p>	<p>Immunocytochemistry</p>  <p>Histone H4 in Ntera-2 Human Cell Line. Histone H4 was detected in immersion fixed Ntera-2 human testicular embryonic carcinoma cell line using Sheep Anti-Human Acetyl Histone H4 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5215) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Sheep IgG Secondary Antibody (red, upper panel; Catalog # NL010) 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	Sterile PBS to a final concentration of 0.2 mg/mL.
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 4 (H4/HIST1H4; also H4M and HIST4H4) is a 12-15 kDa member of the histone H4 family of molecules. It is ubiquitously expressed, with H4 initially synthesized and deposited in replicating chromatin during S phase. H4 undergoes multiple posttranslational modifications. At the G2/M transition, H4 is monomethylated on Lys20 and possibly contributes to transcription initiation/elongation. As the cell moves into the M/G1 phase, Lys20 becomes either dimethylated or trimethylated, contributing to DNA repair and telomere maintenance, respectively. H4 is also known to be phosphorylated on Ser2 and 48, plus Tyr52 and 89, and acetylated on at least nine sites. Human histone 4 is 103 amino acids (aa) in length. Full length histone 4 is identical in aa sequence to mouse histone 4, and 78% aa identical to Tetrahymena histone 4 over aa 2-20 used for immunization.