

#### DESCRIPTION

|                                                                                                                                                                                                         |                                                                                                                                      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Human/Mouse                                                                                                                          |
| <b>Specificity</b>                                                                                                                                                                                      | Detects immunogen in direct ELISAs and human Acetyl Histone H4 in Western blots. Reactivity with non-acetylated peptide was removed. |
| <b>Source</b>                                                                                                                                                                                           | Polyclonal Sheep IgG                                                                                                                 |
| <b>Purification</b>                                                                                                                                                                                     | Antigen Affinity-purified                                                                                                            |
| <b>Immunogen</b>                                                                                                                                                                                        | Tetrahymena pyriformis acetylated Histone H4 synthetic peptide<br>AGGKGKGMGKVGAKRHSK<br>Accession # P02310                           |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 594<br>Excitation Wavelength: 590 nm<br>Emission Wavelength: 617 nm                                                      |
| <b>Formulation</b>                                                                                                                                                                                      | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide                                                                         |
| *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |                                                                                                                                      |

#### 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.

|                            |                                                                        |
|----------------------------|------------------------------------------------------------------------|
| <b>Western Blot</b>        | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunocytochemistry</b> | Optimal dilution of this antibody should be experimentally determined. |

#### PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

#### BACKGROUND

Histone 4 (H4/HIST1H4I; 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.

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