

## Histone H3.cs1 antibody (pAb)

**Catalog Nos:** 39573, 39574

**RRID:** AB\_2793264

**Isotype:** Serum

**Application(s):** WB

**Reactivity:** Human

**Volumes:** 100 µl, 10 µl

**Purification:** None

**Host:** Rabbit

**Molecular Weight:** 15 kDa

**Background:** Histone H3 is one of the core components of the nucleosome. The nucleosome is the smallest subunit of chromatin and consists of 147 base pairs of DNA wrapped around an octamer of core histone proteins (two each of Histone H2A, Histone H2B, Histone H3 and Histone H4). Chromatin is subject to a variety of chemical modifications, including post-translational modifications of the histone proteins and the methylation of cytosine residues in the DNA. Reported histone modifications include acetylation, methylation, phosphorylation, ubiquitylation, glycosylation, ADP-ribosylation, carbonylation and SUMOylation; these modifications play a major role in regulating gene expression.

Histone H3 is proteolytically cleaved at its N-terminus by Cathepsin L during the differentiation of embryonic stem cells. It is possible that this processing occurs in order to remove modifications that serve as protein recognition elements (*e.g.* Histone H3 trimethyl Lys9) present in the extreme N-terminus.

**Immunogen:** This Histone H3.cs1 antibody was raised against a peptide containing the site of Cathepsin L cleavage at the N-terminus.

**Buffer:** Rabbit serum containing 30% glycerol and 0.035% sodium azide. Sodium azide is highly toxic.

### Application Notes:

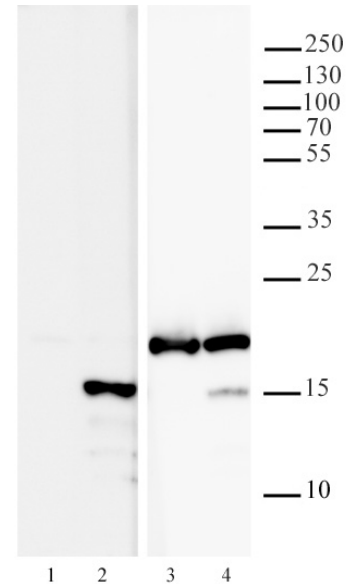
Applications Validated by Active Motif:

WB: 1:500 - 1:1,000 dilution

Depending upon the gel system employed, a change in mobility of the clipped form of histone H3 may not be observed.

**Storage and Guarantee:** Some products may be shipped at room temperature. This will not affect their stability or performance. Avoid repeated freeze/thaw cycles by aliquoting items into single-use fractions for storage at -20°C for up to 2 years. Keep all reagents on ice when not in storage. This product is guaranteed for 12 months from date of receipt.

This product is for research use only and is not for use in diagnostic procedures.



**Histone H3.cs1 pAb tested by Western blot.** Untreated (lane 1) and Cathepsin L-treated (lane 2 and 4) recombinant Histone H3.1 (Cat. No. 31294) were blotted with Histone H3.cs1 pAb (top panel) or Histone H3 (bottom panel). Only the Cathepsin L-cleaved histone H3 is detected with the H3.cs1 antibody