

## H4K20me2 polyclonal antibody - Classic

**Cat. No.** C15410301

**Type:** Polyclonal

**Source:** Rabbit

**Lot #:** 001

**Size:** 50 µg

**Concentration:** 0.53 µg/µl

**Specificity:** Human, mouse, *C. elegans*, rat, chicken, *Xenopus*, *Drosophila*, plant

**Purity:** Affinity purified

**Storage:** Store at -20°C; for long storage, store at -80°C. Avoid multiple freeze-thaw cycles.

**Precautions:** This product is for research use only. Not for use in diagnostic or therapeutic procedures.

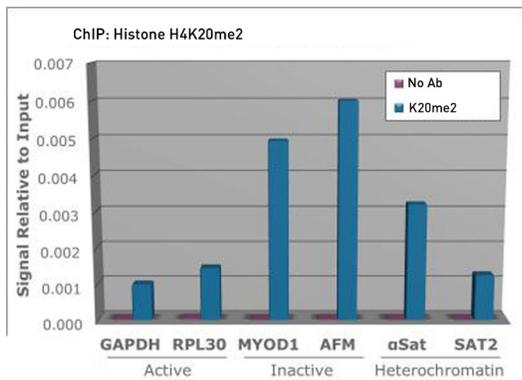
### Applications

	Suggested dilution	Results
ChIP	2-5 µg/million cells	Figure 1
IF	1:50	Figure 2
Western blot	1:2,000	Figure 3, 4
Immunochemistry	1:50	

### Target description

When K20 is di-methylated on H4, the downstream effect is silencing of genes. This modification is also necessary and sufficient for 53BP1 binding, which is a prerequisite for DNA repair, a highly conserved mechanism. H4K20me2 is associated with hypoacetylation, and inactivation of certain genes. NSD1 and Suv420h1/2 trigger the dimethylation of K20, but only after SET8 catalyzes the mono-methylation of the same lysine, indicating a complex regulation of this modification that can seriously affect replication and stability of genomic information.

## Results

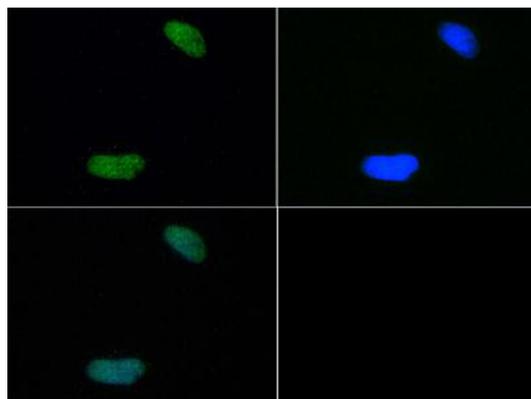


**Figure 1. ChIP**

Chromatin Immunoprecipitation of H4K20me2 antibody. Chromatin from one million formaldehyde cross-linked HeLa cells was used with 2 µg of H4K20me2 antibody and 20 µl of magnetic IgG beads per immunoprecipitation. A no antibody (No Ab) control was also used. Immunoprecipitated DNA was quantified using quantitative PCR and normalized to the input chromatin.

**Figure 2. Immunofluorescence**

Immunofluorescence of H4K20me2 antibody. Tissue: HeLa cells. Fixation: 0.5% PFA. Primary antibody used at a 1:50 dilution for 1 h at RT. Secondary antibody: FITC secondary antibody at 1:10,000 for 45 min at RT. Localization: Histone H4K20me2 is nuclear and chromosomal. Staining: Histone H4K20me2 is expressed in green, nuclei are counterstained with DAPI (blue).



250>

150>

100>

75>

50>

37>

25>

20>

15>

10>

**Figure 3. Western Blot**

Western Blot of H4K20me2 antibody. 30 µg *C. elegans* embryo lysate. Primary antibody used at a 1:2000 dilution overnight at 4°C. Secondary antibody: IRDye800™ rabbit secondary antibody at 1:10,000 for 45 min at RT. Predicted/Observed size: ~13 kDa. Other band(s): None.

**Figure 4. Western Blot**

Western Blot of H4K20me2 antibody. 30 µg HeLa histone extracts. Primary antibody at a 1:2000 dilution overnight at 4°C. Secondary antibody: IRDye800™ rabbit secondary antibody at 1:10,000 for 45 min at RT. Predicted/Observed size: ~13 kDa. Other band(s): None.

