

## Histone H3K27ac Antibody, SNAP-ChIP® Certified

|                     |              |                      |   |
|---------------------|--------------|----------------------|---|
| <b>Catalog No</b>   | 13-0045      | <b>Type</b>          | Monoclonal                              |
| <b>Lot No</b>       | 22242006-81  | <b>Host</b>          | Mouse                                   |
| <b>Pack Size</b>    | 50 µg        | <b>Concentration</b> | 1 mg/mL                                 |
| <b>Applications</b> | ChIP, ICC/IF | <b>Reactivity</b>    | Human, Mouse,<br>Wide Range (Predicted) |

### DESCRIPTION

This antibody meets EpiCypher's "SNAP-ChIP® Certified" criteria for specificity and efficient target enrichment in a ChIP experiment (<20% cross-reactivity across the panel, >5% recovery of target input). Histone H3 is one of the four proteins that are present in the nucleosome, the basic repeating subunit of chromatin, consisting of 147 base pairs of DNA wrapped around an octamer of core histone proteins (H2A, H2B, H3 and H4). This antibody binds to H3K27ac and no significant cross reactivity with other lysine acylations in the EpiCypher SNAP-ChIP K-AcylStat Panel (EpiCypher 19-3001) is detected. Antibody binding to H3K27ac in the context of phosphorylation at S28 (H3K27acS28ph) is inhibited to varying degrees in ChIP (**Figure 1**).

### TECHNICAL INFORMATION

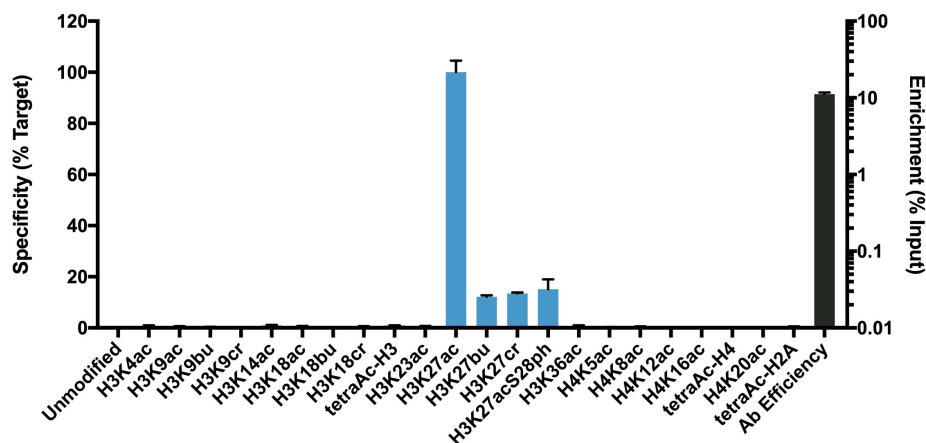
|                    |  |
|--------------------|--|
| <b>Immunogen</b>   | A synthetic peptide corresponding to histone H3 acetylated at lysine 27                            |
| <b>Storage</b>     | Stable for 1 year at -20°C from date of receipt. For best results, aliquot and avoid freeze/thaws. |
| <b>Formulation</b> | Protein A affinity-purified antibody in PBS pH 7.4, 0.05% sodium azide                             |
| <b>Target Size</b> | 15 kDa   |

### RECOMMENDED DILUTION

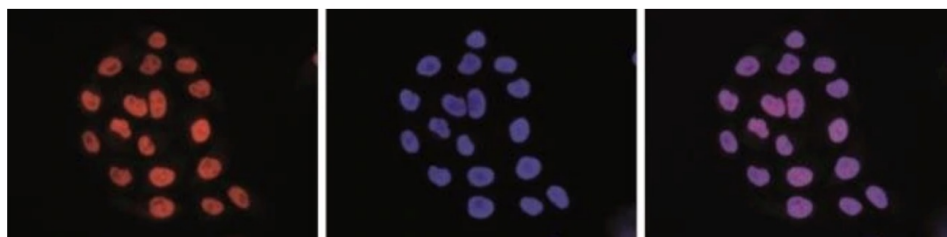
|   |                             |
|---|-----------------------------|
| <b>Chromatin Immunoprecipitation</b>          | 2 - 5 µg per 5 µg chromatin |
| <b>Immunocytochemistry/Immunofluorescence</b> | 1:500                       |

### REFERENCES

## VALIDATION DATA



**FIGURE 1 SNAP-ChIP-qPCR data.** Histone H3K27ac antibody (3  $\mu$ g) was tested in a native ChIP experiment using chromatin from K562 cells (3  $\mu$ g) with the SNAP-ChIP K-AcylStat Panel (EpiCypher 19-3001) spiked-in prior to micrococcal nuclease digestion. Specificity (left y-axis) was determined by qPCR for the DNA barcodes corresponding to modified nucleosomes in the SNAP-ChIP panel (x-axis). Black bar represents antibody efficiency (right y-axis; log scale) and indicates percentage of the target immunoprecipitated relative to input. Error bars represent mean  $\pm$  SEM in replicate ChIP experiments.



**FIGURE 2 Immunofluorescence data.** IF detection of H3K27ac in HeLa cells immunofluorescently labeled with H3K27ac antibody at a dilution of 1:500, followed by the addition of an anti-mouse secondary antibody conjugated to a Alexa Fluor 594 (left). The middle panel shows staining of the nuclei with DAPI. A composite of the two stainings is shown on the right.