

# Histone H4K12ac Antibody, SNAP-ChIP<sup>®</sup> Certified



EpiCypher<sup>®</sup>

**Catalog No** 13-0037

**Lot No** 21218003-21

**Pack Size** 100 µg

**Type** Monoclonal

**Host** Rabbit

**Target Size** 11.4 kDa

**Format** Aff. Pur. IgG

**Reactivity** Human, wide range predicted

**Applications** ChIP, Luminex, WB, ICC

## Product Description:

This antibody meets EpiCypher's "SNAP-ChIP<sup>®</sup> Certified" criteria for specificity and efficient target enrichment in a ChIP experiment (<20% cross-reactivity across the panel, >5% recovery of target input) based on technology originating from Grzybowski et al. [1] and profiling standards from Shah et al. [2]. This antibody preferentially reacts to H4K12ac over a tetraacetyl nucleosome (H4K5,8,12,16ac). No cross reactivity to other lysine acylations in the EpiCypher SNAP-ChIP K-AcylStat panel (EpiCypher 19-3001) is detected.

## Immunogen:

Synthetic peptide corresponding to histone H4 acetylated at lysine 12.

## Formulation:

Protein A affinity-purified recombinant monoclonal antibody (1 mg/mL) in PBS, with 0.09% sodium azide, 1% BSA, and 50% glycerol.

## Storage and Stability:

Stable for 1 year at -20°C from date of receipt.

## Recommended Dilution:

**ChIP:** 2 - 5 µg per 10<sup>6</sup> cells

**WB:** 0.5 - 2 µg/mL

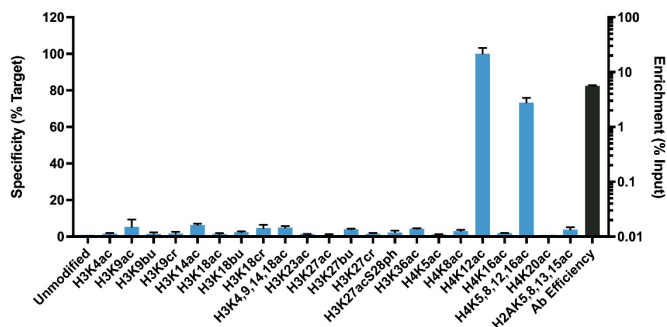
**ICC:** 0.5 - 2 µg/mL

**Luminex:** 1:250 - 1:4,000

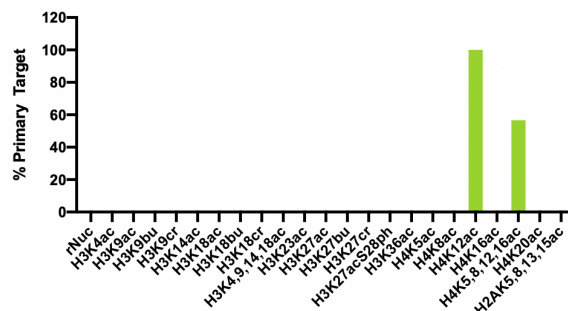
## References:

[1] Grzybowski et al. (2015) *Mol Cell* 58:886

[2] Shah et al. (2018) *Mol Cell* 72:162



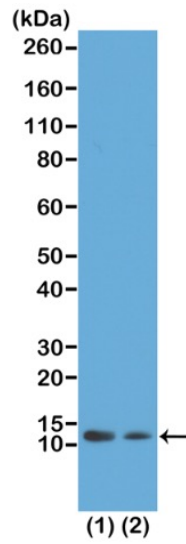
**SNAP-ChIP-qPCR:** Histone H4K12ac antibody (3 µg) was tested in a native ChIP experiment using chromatin from K-562 cells (3 µg) with the SNAP-ChIP K-AcylStat Panel (EpiCypher 19-3001) spiked-in prior to micrococcal nuclease digestion. Specificity (left y-axis) was determined by qPCR for the DNA barcodes 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.



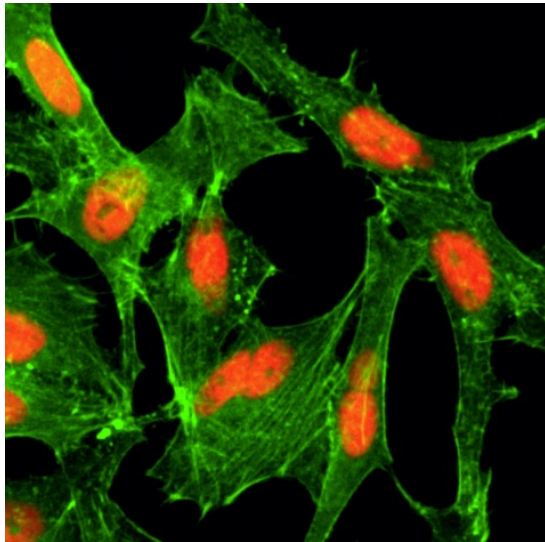
**Luminex Data:** Histone H4K12ac antibody was assessed using a Luminex<sup>®</sup> based approach employing dCypher<sup>™</sup> Nucleosome K-AcylStat Panel (EpiCypher 16-9003). The panel comprises biotinylated designer nucleosomes (x-axis) individually coupled to uniquely identifiable Luminex MagPlex<sup>®</sup> beads. Antibody binding to nucleosomes was tested in multiplex (23-plex) at a 1:250 dilution, and detected with second layer anti-IgG\*PE. Data was generated using a Luminex FlexMAP3D<sup>®</sup>. Data normalized to relevant on-target is shown (H4K12ac; set to 100).

This product is for *in vitro* research use only and is not intended for use in humans or animals.

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**Western Blot Data:** Western blot of acid extracts from HeLa cells treated with sodium butyrate (1), and acid extracts from untreated HeLa cells (2) using 0.5  $\mu\text{g}/\text{mL}$  of H4K12ac antibody.



**Immunocytochemistry Data:** Immunocytochemistry of HeLa cells treated with sodium butyrate, using H4K12ac antibody (red). Actin filaments have been labeled with fluorescein phalloidin (green).

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