Histone H3K18acyl Antibody, SNAP-ChIP® Certified

Catalog No 13-0050
Lot No 21161001-62
Pack Size 100 µL

Type Polyclonal **Host** Rabbit **Target Size** 15 kDa **Format** Aff. Pur. IgG

Reactivity Human, Mouse, Rat, Yeast **Applications** ChIP, WB, ICC/IF, IHC, IP

Product 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) based on technology originating from Grzybowski et al. [1] and profiling standards from Shah et al. [2]. This antibody reacts to H3K18 acetylation as well as extended acyl states (butyrylation, bu; crotonylation, cr) when present alone and in combination (H3K4,9,14,18ac). No cross reactivity to other lysine acylations in the EpiCypher SNAP-ChIP K-AcylStat panel (EpiCypher 19-3001) is detected.

Immunogen:

A synthetic peptide corresponding to histone H3 acetylated at lysine 18.

Formulation:

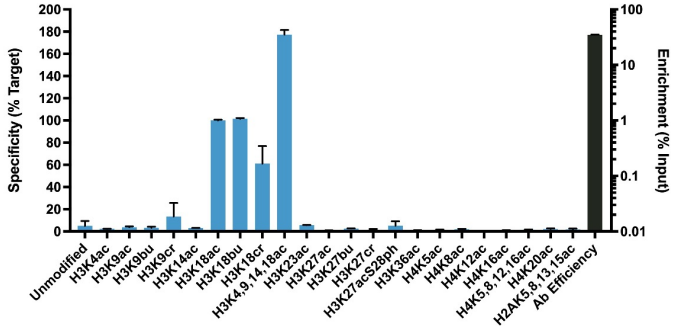
Antigen affinity-purified polyclonal antibody (1 mg/mL) in PBS pH 7, 1% BSA, 20% glycerol, 0.01% thimerosal.

Storage and Stability:

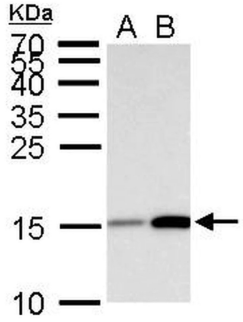
Store at 4°C after thawing. Aliquot and store at -20°C. Avoid repeated freeze / thaw cycles. Stable for 1 year at -20°C from date of receipt.

Recommended Dilution:

ChIP: 2 - 5 µg per 10^6 cells
ICC/IF: 1:100 - 1:1,000
WB: 1:1,000 - 1:10,000
IHC: 1:100 - 1:1,000
IP: 1:100 - 1:500



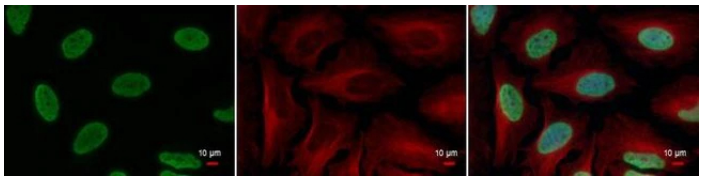
SNAP-ChIP-qPCR: Histone H3K18acyl antibody (3 µg) was tested in a native ChIP experiment using chromatin from K-562 cells (3 µg) with the SNAP-ChIP K-AcylStat Panel spiked-in prior to micrococcal nuclease digestion. Specificity (left y-axis) was determined by qPCR for the DNA barcodes corresponding to 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.



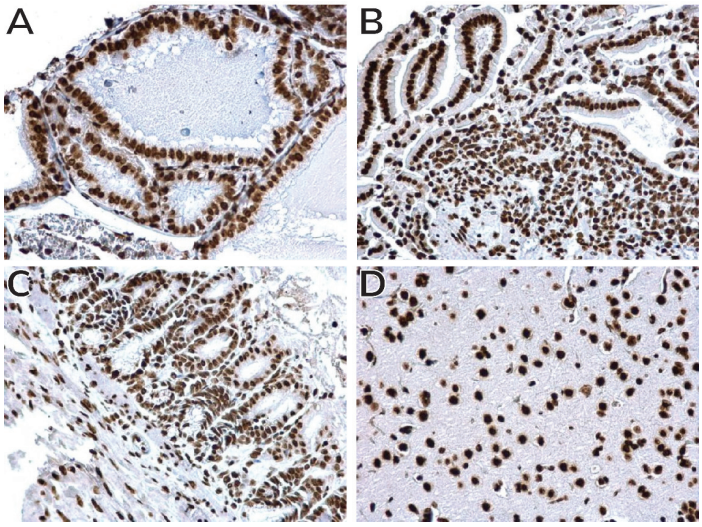
Western Blot Data: Western analysis of H3K18acyl from 30 µg of HeLa whole cell lysate after 0.012% DMSO (Lane A) or 0.4 µM Trichostatin A (Lane B) treatment for 18 hours. H3K18acyl antibody was used for detection at 1:5,000 dilution.

References:

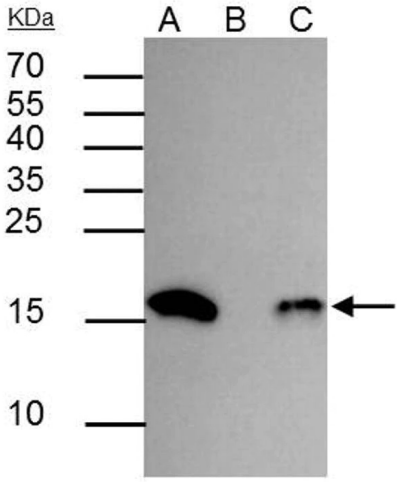
[1] Grzybowski et al. (2015) *Mol Cell* 58:886
[2] Shah et al. (2018) *Mol Cell* 72:162



Immunofluorescence: IF detection of histone H3K18acyl in paraformaldehyde fixed HeLa cells. **Left Panel:** Detection of H3K18acyl (green) using H3K18acyl antibody at a 1:500 dilution and a fluorescently labeled anti-rabbit IgG secondary antibody. **Middle Panel:** Localization of alpha Tubulin (red). **Right Panel:** A merged image of the Left and Middle panels with Hoechst dye (blue) indicating nuclear localization of H3K18acyl.



Immunohistochemistry: IHC detection of H3K18acyl in paraffin-embedded (A) mouse prostate (B) mouse intestine (C) mouse duodenum and (D) rat forebrain using H3K18acyl antibody at a 1:500 dilution.



Immunoprecipitation: IP analysis of H3K18acyl in HeLa whole cell lysate treated with 0.4 µM Trichostatin A for 18 hours. **Lane A:** 30 µg of HeLa whole cell lysate. **Lane B:** IP with control rabbit IgG antibody. **Lane C:** Protein recovered from IP with H3K18acyl antibody (1:400 dilution). Western analysis was performed by binding with H3K18acyl primary antibody (1:5,000 dilution), followed by detection with an HRP-conjugated anti-rabbit IgG secondary antibody.