diagenode
A Hologic Company

TECHNICAL DATASHEET

H4K12ac polyclonal antibody - Classic

Cat. No. C15410302
Type: Polyclonal
Source: Rabbit
Lot #: 001
Size: 50 µg
Concentration: 0.69 µg/µl

Specificity: Human
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
IF	1:100	Figure 1
Immunohistochemistry	1:100	
Western blot	1:500-1:1,000	Figure 2
Dot blot	1:1,000	Figure 3

Target description

Chromatin is the arrangement of DNA and proteins in which chromosomes are formed. Correspondingly, chromatin is formed from nucleosomes, which are comprised of a set of four histone proteins (H2A, H2B, H3, H4) wrapped with DNA. Chromatin is a very dynamic structure in which numerous post-translational modifications work together to activate or repress the availability of DNA to be copied, transcribed, or repaired. These marks decide which DNA will be open and commonly active (euchromatin) or tightly wound to prevent access and activation (heterochromatin). Common histone modifications include methylation of lysine and arginine, acetylation of lysine, phosphorylation of threonine and serine, and sumoylation, biotinylation, and ubiquitylation of lysine. In particular, acetylation of H4 at Lys5 (H4K5ac) has been linked to transcriptional activation and DNA repair. Newly assembled histones are typically acetylated on H4 at lysine 5 and 12. The enzyme histone acetyltransferase 1 (HAT1) is the primary modulator, and these marks are necessary for complete chromatin assembly. Research suggests that [H4K12ac] is associated with memory repair and telomere replication.

Results

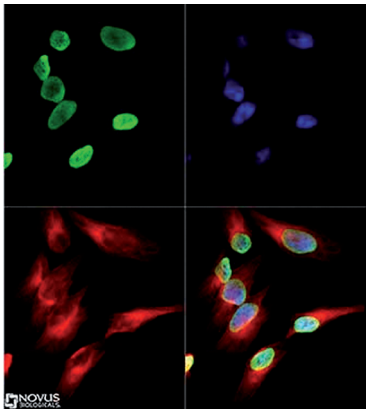

Figure 1. H4K12ac Immunofluorescence results

Immunofluorescence of H4K12ac antibody. H4K12ac antibody was tested in Hela cells with DyLight 488 (green). Nuclei and alpha-tubulin were counterstained with DAPI (blue) and DyLight 550 (red).

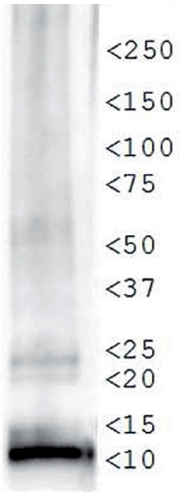

Figure 2. H4K12ac Western blot results

Western Blot of H4K12ac antibody. Western Blot analysis against untreated HeLa cell extracts. Load: 35 µg per lane. Primary antibody used at 1.0 µg/mL overnight at 4°C. Secondary antibody: IRDye800™ rabbit secondary antibody at 1:10,000 for 45 min at RT. Predicted/Observed size: 11 kDa for Histone H4K12ac antibody. Other band(s): none.

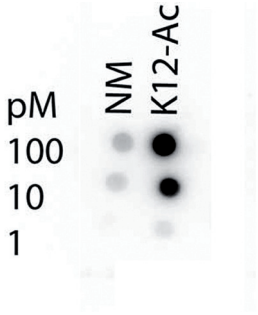

Figure 3. H4K12ac Dot blot results

Dot Blot of H4K12ac antibody. Lane 1: K12 unmodified. Lane 2: K12-acetylated. Load: 1, 10, and 100 picomoles of peptide. Primary antibody used at 1:1,000 for 45 min at 4°C. Secondary antibody: RABBIT IgG Secondary Antibody HRP Conjugated at 1:40,000 for 30 min at RT.

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