diagenode
A Hologic Company

TECHNICAL DATASHEET

H3T3pK4me1 polyclonal antibody - Classic

Cat. No. C15410277
Type: Polyclonal
Source: Rabbit
Lot #: 001
Size: 50 µg
Concentration: 0.98 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
Immunohistochemistry	1:100	
IF	1:100	Figure 1
Western blot	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, methylation of lysine 4 on H3 (H3K4Me) and phosphorylation of threonine 3 (H3T3p) are known marks of transcriptional activation and mitosis, respectively. While H3K4 has many known modifying enzymes (Set1, Set7/9, MLL, ASH1), Haspin is the only known modifier for H3T3. Recent findings also demonstrate that T3p can promote binding of survivin in the nucleosome.

Results

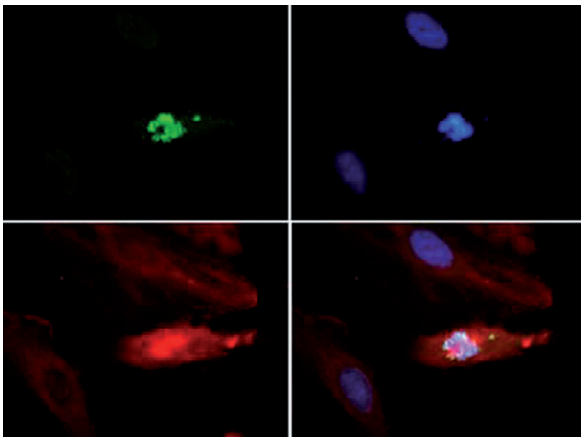

Figure 1. H3T3pK4me1 antibody Immunofluorescence results

Immunofluorescence Microscopy of H3T3pK4me1 antibody. Tissue: HeLa cells. Fixation: 0.5% PFA. Primary antibody: used at a 1:100 dilution for 1 h at RT. Secondary antibody: Dylight 488 secondary antibody at 1:10,000 for 45 min at RT. Localization: Histone H3T3pK4me1 is nuclear and chromosomal. Staining: Histone H3T3pK4me1 is expressed in green while the nuclei and aplpha-tubulin were coexpressed with DAPI (blue) and Dylight 550 (red).

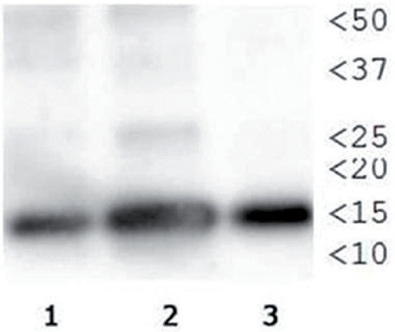

Figure 2. H3T3pK4me1 antibody Western blot results

Western Blot of Rabbit H3T3pK4me1 antibody. Lane 1: HeLa histone extracts. Lane 2. NIH 3T3 histone extracts Lane 3. C. elegans embryo lysate. Load: 30 µg per lane. Primary antibody used at a 1:1,000 dilution overnight at 4°C. Secondary antibody: IRDye800™ rabbit secondary antibody at 1:10,000 for 45 min at RT. Predicted/Observed size: ~15 kDa. Other band(s): None.

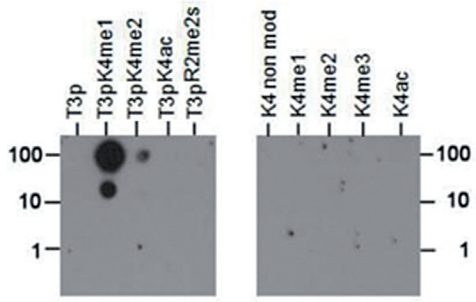

Figure 3. H3T3pK4me1 antibody Dot blot results

Dot Blot of H3T3pK4me1 antibody. Load: 1, 10, and 100 picomoles of the different peptides. Primary antibody used at a 1:1,000 dilution for 45 min at 4°C. Secondary antibody: HRP rabbit secondary antibody at 1:40,000 for 45 min at RT.

Diagenode sa. BELGIUM | EUROPE
LIEGE SCIENCE PARK
Rue Bois Saint-Jean, 3
4102 Seraing (Ougrée) - Belgium
Tel: +32 4 364 20 50
Fax: +32 4 364 20 51
orders@diagenode.com
info@diagenode.com

Diagenode Inc. USA | NORTH AMERICA
400 Morris Avenue, Suite 101
Denville, NJ 07834 - USA
Tel: +1 862 209-4680
Fax: +1 862 209-4681
orders.na@diagenode.com
info.na@diagenode.com

Last update: September 10, 2014