

Alexa Fluor[®] 594 anti-Histone H3-Phosphorylated (Ser28) Antibody

Catalog# / Size	641015 / 25 µg 641016 / 100 µg
Clone	HTA28
Regulatory Status	RUO
Other Names	Histone-H3
Isotype	Rat IgG2a, κ
Description	H3 is a core component of the nucleosome that serves to wrap and compact DNA into chromatin. Histones therefore, limit the accessibility of DNA, providing mechanisms for transcription regulation, DNA repair and replication and chromosomal stability. During mitosis, H3 is phosphorylated at serine 28. This phosphorylation coincides with chromosome condensation initiated at prophase and disappears at late anaphase. H3 has been demonstrated to be phosphorylated by the action of MLTK-α (mixed lineage kinase-like mitogen activated protein triple kinase α) in response to ultraviolet B light and epidermal growth factor, as well as Aurora-B during mitosis.

Product Details

Verified Reactivity	Human
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	Synthetic peptide conjugated to KLH, corresponding to amino acids 23-35 of human histone H3.
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography and conjugated with Alexa Fluor [®] 594 under optimal conditions.
Concentration	0.5 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	ICC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by immunocytochemistry. For immunocytochemistry, a concentration range of 0.05 - 0.2 µg/ml (1:2500-1:10000 dilution) is recommended. It is recommended that the reagent be titrated for optimal performance for each application. * Alexa Fluor [®] 594 has an excitation maximum of 590 nm, and a maximum emission of 617 nm. Alexa Fluor [®] and Pacific Blue™ are trademarks of Life Technologies Corporation. View full statement regarding label licenses
Application Notes	This clone is not recommended for ChIP (Chromatin Immunoprecipitation) assays (as determined by in-house testing).
Application References	<ol style="list-style-type: none">1. Hirata A, et al. 2004. <i>J. Histochem. Cytochem.</i> 52:1503.2. Goto H, et al. 1999. <i>J. Biol. Chem.</i> 274:25543.3. Ozawa K. 2008. <i>Cytometry A</i> 73:517.4. Goode NJ, et al. 2014. <i>PLoS Genet.</i> 10:1004323. PubMed
RRID	AB_2728471 (BioLegend Cat. No. 641015) AB_2728472 (BioLegend Cat. No. 641016)

Antigen Details

Structure	H3 is part of the nucleosome, comprised of an octameric complex with H2A, H2B, and H4 proteins.
Distribution	Nucleus
Function	H3 is a core component of the nucleosome that serves to wrap and compact DNA into chromatin. Histones therefore, limit the accessibility of DNA, providing mechanisms for transcription regulation, DNA repair and replication and chromosomal stability.
Interaction	Two molecules of H3 form a heterotetramer with two molecules of H4.
Biology Area	Cell Biology, DNA Repair/Replication, Transcription Factors
Molecular Family	Phospho-Proteins
Antigen References	1. Choi HS, <i>et al.</i> 2005. <i>J. Biol. Chem.</i> 280:13545. 2. Goto H, <i>et al.</i> 2002. <i>Genes Cells</i> 7:11. 3. Garcia BA, <i>et al.</i> 2005. <i>Biochemistry</i> 44:13202.
Regulation	H3 is regulated by acetylation, methylation, citrullination, phosphorylation, and ubiquitination.
Gene ID	8290

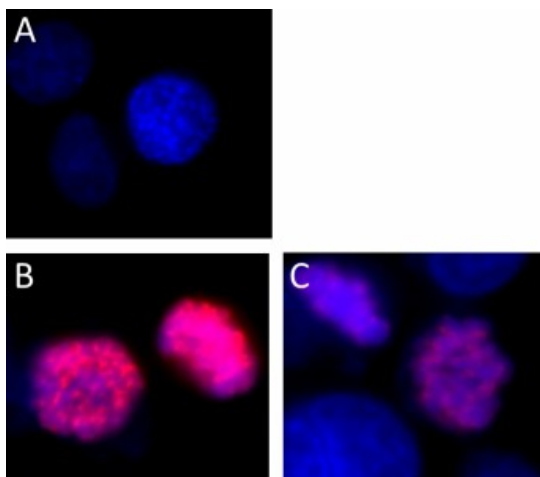
Related Protocols

[Immunocytochemistry Staining Protocol](#)

Other Formats

Purified anti-Histone H3-Phosphorylated (Ser28), Alexa Fluor® 488 anti-Histone H3-Phosphorylated (Ser28), Alexa Fluor® 647 anti-Histone H3-Phosphorylated (Ser28), Purified anti-Histone H3-Phosphorylated (Ser28) (Maxpar® Ready), PE anti-Histone H3-Phosphorylated (Ser28), PE/Cyanine7 anti-Histone H3-Phosphorylated (Ser28), PerCP/Cyanine5.5 anti-Histone H3-Phosphorylated (Ser28), Alexa Fluor® 594 anti-Histone H3-Phosphorylated (Ser28), Direct-Blot™ HRP anti-Histone H3 Phospho (Ser28)

Product Data



HeLa cells were fixed with 4% paraformaldehyde (PFA) for 10 minutes, permeabilized with 0.5% Triton X-100 for 3 minutes, and blocked with 5% FBS for 60 minutes. Then the cells were intracellularly stained overnight at 4°C with 1: 2500 diluted (0.2 µg/ml, A) Alexa Fluor® 594 Rat IgG2a, κ isotype control antibody or 1: 2500 diluted (0.2 µg/ml, B) and 1: 10000 diluted (0.05 µg/ml, C) Alexa Fluor® 594 anti-Histone H3-Phosphorylated (Ser28) antibody (red). Nuclei were counterstained with DAPI (blue). The image was captured with a 60X objective. The images displayed HeLa cells at prophase in cell cycle.

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