

PE/Cyanine7 anti-Histone H3-Phosphorylated (Ser28) Antibody

Catalog# / Size	641011 / 25 tests 641012 / 100 tests
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

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 and BSA (origin USA)
Preparation	The antibody was purified by affinity chromatography and conjugated with PE/Cyanine7 under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.)
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	ICFC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by intracellular immunofluorescent staining with flow cytometric analysis . For flow cytometric staining, the suggested use of this reagent is 5 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
Application Notes	This clone is not recommended for ChIP (Chromatin Immunoprecipitation) assays (as determined by in-house testing).
Additional Product Notes	BioLegend is in the process of converting the name PE/Cy7 to PE/Cyanine7. The dye molecule remains the same, so you should expect the same quality and performance from our PE/Cyanine7 products. Please contact Technical Service if you have any questions.
Application References	<ol style="list-style-type: none"> Hirata A, et al. 2004. <i>J. Histochem. Cytochem.</i> 52:1503. Goto H, et al. 1999. <i>J. Biol. Chem.</i> 274:25543. Ozawa K. 2008. <i>Cytometry A</i> 73:517. Goode NJ, et al. 2014. <i>PLoS Genet.</i> 10:1004323. PubMed
(PubMed link indicates BioLegend citation)	
Product Citations	<ol style="list-style-type: none"> Earl DC, et al. 2018. <i>Nat Commun.</i> 9:39. PubMed

RRID AB_2565889 (BioLegend Cat. No. 641011)
AB_2565890 (BioLegend Cat. No. 641012)

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

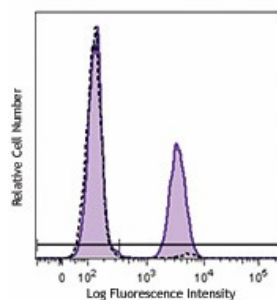
[Intracellular Cytokine Staining Protocol - Video](#)

[Intracellular Flow Cytometry 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 (open histogram) and HeLa cells treated with Nocodazole for 24 hours (filled histogram), were fixed, permeabilized, and then stained with anti-Histone H3-Phosphorylated (Ser28) (clone HTA28) PE/Cyanine7.

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