

Alexa Fluor® 647 anti-Histone H3.1 Phospho (Ser28) Antibody

Catalog# / Size	687603 / 25 tests 687604 / 100 tests
Clone	5D10D4
Regulatory Status	RUO
Other Names	Histone-H3
Isotype	Rat IgG2a, κ
Description	<p>Histone proteins are classified into core histones (H2A, H2B, H3, H4) and linker histones (H1, H5). Core histones form an octamer, which contains two H2A-H2B dimers and one H3-H4 tetramer. Core histones are predominantly globular except for the unstructured N-terminal tails. Posttranslational modifications, such as acetylation, methylation, phosphorylation, ubiquitination, SUMOylation and ADP-ribosylation occur in histone tails.</p> <p>Histone modifications induce changes of chromatin structure and thereby affect the accessibility of transcription factors, nuclear proteins and enzymes to genomic DNA, resulting in gene activation or repression. It is known that histone modifications play critical roles in DNA repair, DNA replication, transcription regulation, alternative splicing and chromosome condensation and some diseases including autoimmune diseases and cancers.</p>

Product Details

Verified Reactivity	Human
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	Histone H3.1 S28ph peptide (21-39)(ATKAARK(phS)APATGGVKKPH), Freund's complete adjuvant.
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 Alexa Fluor® 647 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	<p>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.</p> <p>* Alexa Fluor® 647 has a maximum emission of 668 nm when it is excited at 633 nm / 635 nm.</p> <p>Alexa Fluor® and Pacific Blue™ are trademarks of Life Technologies Corporation.</p> <p>View full statement regarding label licenses</p>
Excitation Laser	Red Laser (633 nm)
RRID	AB_2616946 (BioLegend Cat. No. 687603) AB_2616947 (BioLegend Cat. No. 687604)

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. Therefore, histones limit the accessibility of DNA by 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, Cell Cycle/DNA Replication, Cell Proliferation and Viability
Molecular Family	Phospho-Proteins
Antigen References	<ol style="list-style-type: none"> 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. 4. Yoshimi T, <i>et al.</i> 2013. <i>Monoclon. Immunodiagn. Immunother.</i> 32:119.
Gene ID	8350

Related Protocols

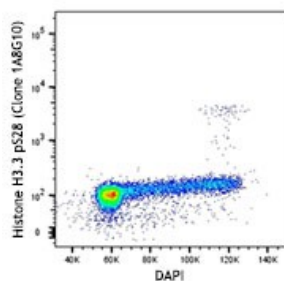
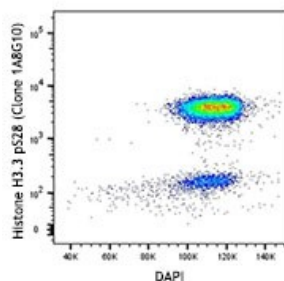
[Surface and Intracellular Cytokine Staining for Flow Cytometry - Video](#)

[Intracellular Flow Cytometry Staining Protocol](#)

Other Formats

Purified anti-Histone H3.1 Phospho (Ser28), Alexa Fluor® 647 anti-Histone H3.1 Phospho (Ser28)

Product Data



HeLa cells were stimulated with (top) or without (bottom) nocodazole for 24 hours, fixed and permeabilized with cold 70% ethanol, then intracellularly stained with DAPI and Histone H3.1 Phospho (Ser28) antibody (clone 5D10D4) Alexa Fluor® 647.

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