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Phospho-Histone H3(S10) Antibody
Purified Mouse Monoclonal Antibody (Mab)
Catalog # AM1151b

Specification

Phospho-Histone H3(S10) Antibody - Product Information

Application	**WB,E**
Primary Accession	P84243
Other Accession	P61830, P02299, P08898, P02302, P02301, Q6NXT2, A5PK61, Q6PI79, P84245, P84246, Q71LE2, P84244, P84249, Q6PI20, P84247, Q5E9F8, Q27532, Q9U281, Q10453, P84233, P84228, Q71DI3, Q4QRF4, P84229, P84227, Q6LED0, P68433, P68431, P68432, Q16695, C0HL66, C0HL67
Reactivity	**Human, Mouse**
Predicted	**Bovine, Rat, Chicken, Zebrafish, Xenopus, C.Elegans, Drosophila, Pig, Rabbit, Yeast**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**Mouse IgG1**

Phospho-Histone H3(S10) Antibody - Additional Information

Gene ID 3020;3021

Other Names
Histone H33, H3F3A, H33A, H3F3

Target/Specificity
This Histone H3 Antibody is generated from mice immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding S10 of human Histone H3.

Dilution
WB~~1:500~1000

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Phospho-Histone H3(S10) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Phospho-Histone H3(S10) Antibody - Protein Information

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Name H3-3A (HGNC:4764)

Synonyms H3.3A, H3F3, H3F3A

Function Variant histone H3 which replaces conventional H3 in a wide range of nucleosomes in active genes. Constitutes the predominant form of histone H3 in non-dividing cells and is incorporated into chromatin independently of DNA synthesis. Deposited at sites of nucleosomal displacement throughout transcribed genes, suggesting that it represents an epigenetic imprint of transcriptionally active chromatin. Nucleosomes wrap and compact DNA into chromatin, limiting DNA accessibility to the cellular machineries which require DNA as a template. Histones thereby play a central role in transcription regulation, DNA repair, DNA replication and chromosomal stability. DNA accessibility is regulated via a complex set of post-translational modifications of histones, also called histone code, and nucleosome remodeling.

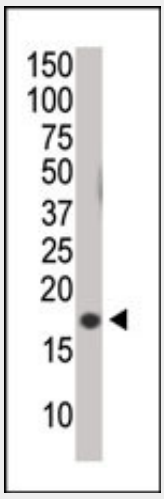
Cellular Location
Nucleus. Chromosome

Phospho-Histone H3(S10) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Phospho-Histone H3(S10) Antibody - Images



Western analysis of extracts from HL60 cells treated with 100nM of calyculin using Histone H3-pS10 Antibody.

Phospho-Histone H3(S10) Antibody - Background

Histones are basic nuclear proteins that are responsible for the nucleosome structure of the

chromosomal fiber in eukaryotes. Two molecules of each of the four core histones (H2A, H2B, H3, and H4) form an octamer, around which approximately 146 bp of DNA is wrapped in repeating units, called nucleosomes. The linker histone, H1, interacts with linker DNA between nucleosomes and functions in the compaction of chromatin into higher order structures. This gene contains introns and its mRNA is polyadenylated, unlike most histone genes. The protein encoded is a replication-independent member of the histone H3 family.

Phospho-Histone H3(S10) Antibody - References

Distinct factors control histone variant H3.3 localization at specific genomic regions. Goldberg AD, et al. Cell, 2010 Mar 5. PMID 20211137.
New functions for an old variant: no substitute for histone H3.3. Elsaesser SJ, et al. Curr Opin Genet Dev, 2010 Apr. PMID 20153629.
ATRX interacts with H3.3 in maintaining telomere structural integrity in pluripotent embryonic stem cells. Wong LH, et al. Genome Res, 2010 Mar. PMID 20110566.
Phosphorylation of histone H3 by protein kinase C signaling plays a critical role in the regulation of the developmentally important TBX2 gene. Teng H, et al. J Biol Chem, 2009 Sep 25. PMID 19633291.
Organismal differences in post-translational modifications in histones H3 and H4. Garcia BA, et al. J Biol Chem, 2007 Mar 9. PMID 17194708.