10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Histone H3 Antibody (S10)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1051d

Product Information

Application	WB, E
Primary Accession	P84243
Reactivity	Human
Predicted	Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB2673
Calculated MW	15328
Antigen Region	1-30

Additional Information

Gene ID	3020;3021
Other Names	Histone H33, H3F3A, H33A, H3F3
Target/Specificity	This Histone H3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from human Histone H3.
Dilution	WB~~1:2000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
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	Histone H3 Antibody (S10) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

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

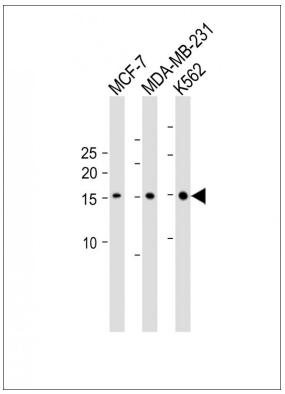
Background

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. The protein targeted by this antibody is a replication-independent member of the histone H3 family.

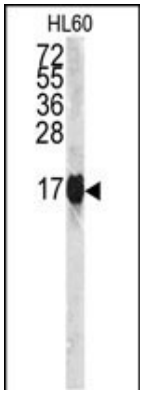
References

Marzluff, W.F., et al., Genomics 80(5):487-498 (2002).
Albig, W., et al., Hum. Genet. 101(3):284-294 (1997).
Albig, W., et al., Genomics 40(2):314-322 (1997).
Albig, W., et al., Genomics 10(4):940-948 (1991).

Images



All lanes: Anti-Histone H3 Antibody (S10) at 1:2000 dilution Lane 1: MCF-7 whole cell lysate Lane 2: MDA-MB-231 whole cell lysate Lane 3: K562 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size: 15 KDa Blocking/Dilution buffer: 5% NFDM/TBST.



Western blot analysis of Histone H3 (N-term) (Cat.#AP1051d) in HL60 cell line lysates (35ug/lane). Histone H3 (arrow) was detected using the purified Pab.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.