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Datasheet for 100-401-E81

Histone H3 Antibody

Overview

Description:	Anti-Histone H3 (RABBIT) Antibody - 100-401-E81
Item No.:	100-401-E81
Size:	100 µL
Applications:	ELISA, IHC, WB, Other
Reactivity:	Human
Host Species:	Rabbit

Product Details

Background:	Histone H3 is one of the five main histone proteins involved in the structure of chromatin in eukaryotic cells. Histone proteins are highly post-translationally modified with Histone H3 being the most extensively modified of the five histones. The N-terminal tail of histone H3 protrudes from the globular nucleosome core and can undergo several different types of post-translational modification that influence cellular processes. 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. Histone H3 Antibody is ideal for investigators involved in Cell Signaling, Epigenetics, Nuclear Signaling research and Signal Transduction research.
Synonyms:	rabbit anti-Histone H3 antibody, Histone H3.1, H3F, H3FA, H3FB, H3FL, H3FL, H3FC, H3FD, H3FI, H3FH, H3FK, H3FF, H3FJ, Histone 3 Antibody
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	Antiserum

Target Details

Gene Name:	HIST1H3A
Reactivity:	Human

Immunogen Type:	Conjugated Peptide
Immunogen:	Anti-Histone-3 was prepared from whole rabbit serum produced by repeated immunizations with a peptide corresponding to the c-terminus region of human histone-3.
Purity/Specificity:	Anti-Histone H3 is directed against the human histone 3 protein. The product was prepared from monospecific antiserum by delipidation and defibrination. A BLAST analysis was used to suggest reactivity with human and multiple other eukaryotic (mouse, rat, chicken, dog, monkey, Xenopus laevis, Arabidopsis thaliana, Caenorhabditis elegans, Fruit fly). Cross-reactivity with histone-3 from other sources have not been determined.
Relevant Links:	• UniProtKB - P68431 • NCBI - NP_003520.1 • GeneID - 8350

Application Details

Tested Applications:	ELISA, IHC, WB
Suggested Applications:	Other (Based on references)
Application Note:	Histone H3 antibody has been tested for use in ELISA, IHC, and western blot. For western blots expect a band of approximately 15.4 kDa in size corresponding to the Histone 3 protein. Specific conditions for reactivity should be optimized by the end user.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:10000
IHC:	1:100
WB:	1:2000

Formulation

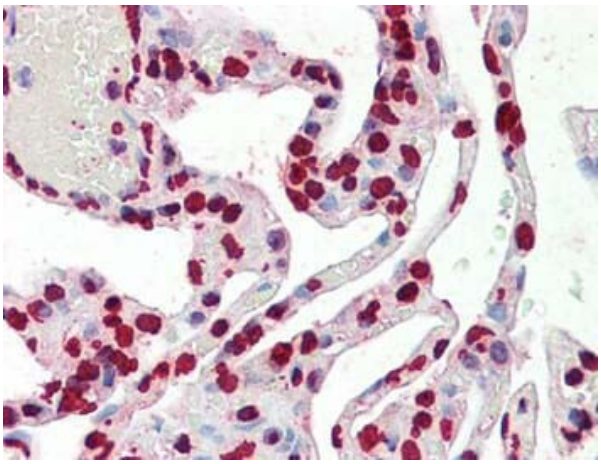
Physical State:	Liquid (sterile filtered)
Concentration:	83 mg/ml by Refractometry
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide

Shipping & Handling

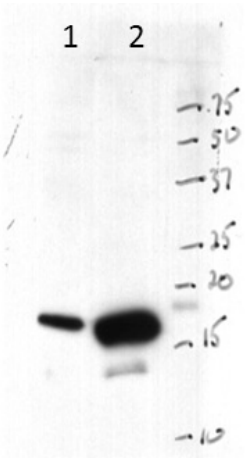
Shipping Condition:	Dry Ice

Storage Condition:	Store H3 Antibody at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

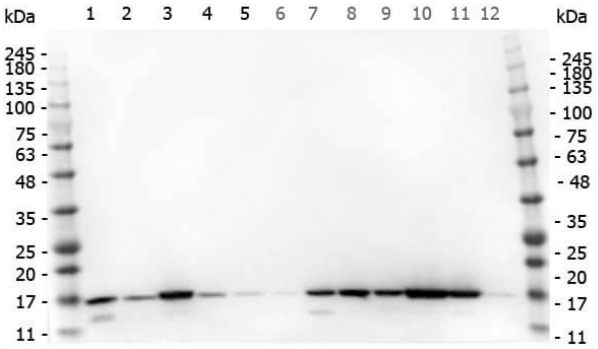
Images



Immunohistochemistry
Immunohistochemistry of Histone H3 antibody. Tissue: human Lung. Fixation: formalin fixed paraffin embedded. Antigen retrieval: user optimized. Primary antibody: 100-401-E81 Histone H3 antibody at 1:100. Secondary antibody: Peroxidase goat anti-rabbit at 1:10,000 for 45 min at RT. Image provided courtesy of Andrew Elston, LifeSpan BioSciences, Inc.



Western Blot
Western Blot of Rabbit anti-Histone 3 antibody. Lane 1: Raji lysate. Lane 2: HeLa lysate. Load: 15ug, 25ug respectively. Primary antibody: Histone 3 antibody at 1:2000 for overnight at 4°C. Secondary antibody: IRDye800™ rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: 15.4 kDa, ~15.4 kDa for Histone 3. Other band(s): none.



Western Blot

Western Blot of Rabbit anti-Histone H3 antibody. Marker: Opal Pre-stained ladder (p/n MB-210-0500). Lane 1: HEK293 lysate (p/n W09-000-365). Lane 2: HeLa Lysate (p/n W09-000-363). Lane 3: MCF-7 Lysate (p/n W09-000-360). Lane 4: Jurkat Lysate (p/n W09-000-370). Lane 5: A431 Lysate (p/n W09-000-361). Lane 6: A549 Lysate (p/n W09-001-372). Lane 7: LNCap Lysate (p/n W09-001-GJ9). Lane 8: MOLT-4 Lysate (p/n W09-001-GK2). Lane 9: Ramos Lysate (p/n W09-000-GK4). Lane 10: Raji Lsyate (p/n W09-001-368). Lane 11: A-172 Lysate (p/n W09-001-GL5). Lane 12: NIH/3T3 Lysate (p/n W10-000-358). Load: 35 µg per lane. Primary antibody: Histone H3 antibody at 1:500 overnight at 4C. Secondary antibody: Peroxidase rabbit secondary antibody (p/n 611-103-122) at 1:30,000 for 60 min at RT. Blocking Buffer: 1% Casein-TTBS for 30 min at RT. Predicted/Observed size: 15 kDa for Histone H3.

References

- George-Alexander LMM et al. G9a controls plasma cell differentiation through FOXO1 and ETS1 binding site regulatory networks. *J Immunol.* (2025)
- Rivera-Casas et al. Molecular and Biochemical Methods Useful for the Epigenetic Characterization of Chromatin-Associated Proteins in Bivalve Molluscs. *Frontiers in Physiology* (2017)

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