

**DATASHEET**

**Histone H3 (DiMethyl-K4) Rabbit Polyclonal Antibody**

CAT. NO. APA11476

**KEY FEATURES**

Target	Histone H3 (DiMethyl-K4)	Source / Host	Rabbit
Reactivity	Human, Mouse, Rat, Bovine, Chicken, Pig, Zebrafish	Clonality	Polyclonal
Applications	WB, IF/ICC	Conjugation	Unconjugated
Form / Buffer	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.		Storage at -20°C

**BACKGROUND**

Core component of nucleosome. 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.

**APPLICATION**

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

WB	1:500 - 1:1000
IF/ICC	1:50 - 1:200

\*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

**PRODUCT OVERVIEW**

Description	Rabbit polyclonal antibody to Histone H3 (DiMethyl-K4)
Specificity	Recognizes endogenous levels of Histone H3 protein only when Di-methylated at K4.
Antibody Type	Primary antibody
Immunogen	KLH-conjugated synthetic Di-methylated peptide corresponding to residues surrounding K4 of human Histone H3 protein. The exact sequence is proprietary.
Purification	The antibody was purified by immunogen affinity chromatography.
Molecular Weight	Predicted: 15 kD; Observed: 17 kD
Form/Buffer	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Alternative Names	HIST1H3A; H3FA; HIST1H3B; H3FL; HIST1H3C; H3FC; HIST1H3D; H3FB; HIST1H3E; H3FD; HIST1H3F; H3FI; HIST1H3G; H3FH; HIST1H3H; H3FK; HIST1H3I; H3FF; HIST1H3J; H3FJ; Histone H3.1; Histone H3/a; Histone H3/b; Histone H3/c; Histone H3/d; Histone H3/f; Histone H3/h; Histone H3/i; Histone H3/j; Histone H3/k; Histone H3/l; HIST2H3A; HIST2H3C; H3F2; H3FM; HIST2H3D; Histone H3.2; Histone H3/m; Histone H3/o; H3F3A; H3.3A; H3F3; PP781; H3F3B; H3.3B; Histone H3.3; H3F3C; Histone H3.3C; Histone H3.5
Gene Symbol	HIST1H3A; HIST1H3; HIST1H3C; HIST1H3D; HIST1H3E; HIST1H3F; HIST1H3G; HIST1H3H; HIST1H3I; HIST1H3J; HIST2H3A; HIST2H3C; HIST2H3D; H3F3A; H3F3B; H3F3C
Entrez Gene	8350; 8351; 8352; 8353; 8354; 8355; 8356; 8357; 8358; 8968; 126961; 333932; 653604; 3020; 3021; 440093(Human)
SwissProt	P68431; Q71DI3; P84243; Q6NXT2(Human)

\*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact [info@arexbio.com](mailto:info@arexbio.com) or your local distributor.

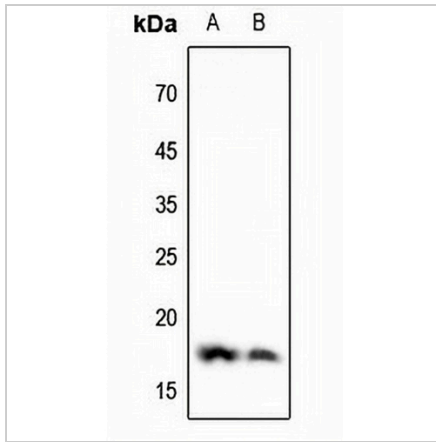
\*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

**DATASHEET**

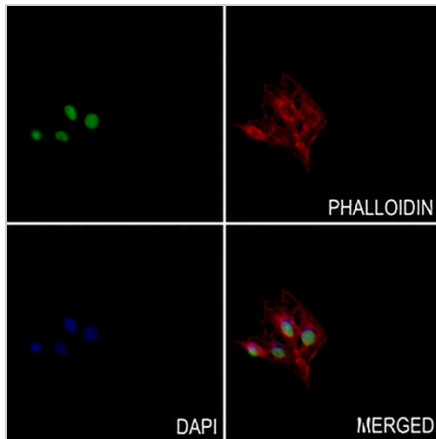
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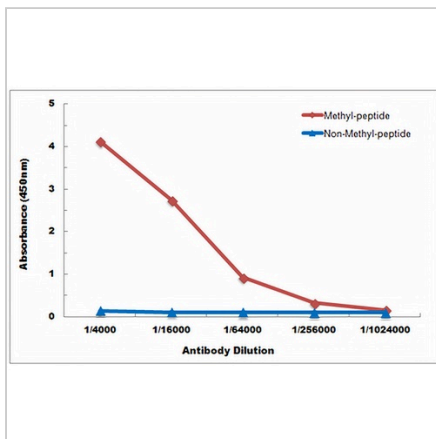
**DATA**



Western blot analysis of Histone H3 (DiMethyl-K4) expression in U2OS (A), DLD (B) whole cell lysates. (Predicted band size: 15 kD; Observed band size: 17 kD)



Immunofluorescent analysis of Histone H3 (DiMethyl-K4) staining in C6 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AREX® Fluor 488 - conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AREX® Fluor 594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).



Direct ELISA antibody dose-response curve using Anti-Histone H3 (DiMethyl-K4) Antibody. Antigen (methyl-peptide and non-methyl-peptide) concentration is 5 ug/ml. Goat Anti-Rabbit IgG (H&L) - HRP was used as the secondary antibody, and signal was developed by TMB substrate.

**STORAGE**

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

**NOTE**

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.