

Rabbit Anti-Histone H3 Family 3A/H3F3A [MD148R]: RM0084

Intended Use: For Research Use Only

Description: Histone H3 is one of the DNA-binding proteins found in the chromatin of all eukaryotic cells. H3 along with four core histone proteins binds to DNA forming the structure of the nucleosome. Post translationally, histones are modified in a variety of ways to either directly change the chromatin structure or allow for the binding of specific transcription factors. 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. These modifications include the covalent attachment of methyl or acetyl groups to lysine and arginine amino acids and the phosphorylation of serine or threonine. 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.

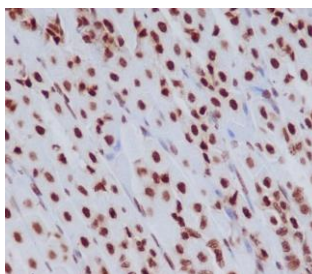
Specifications:

Clone: MD148R
 Source: Rabbit
 Isotype: IgG
 Reactivity: Human, mouse, rat
 Immunogen: Synthesized peptide derived from human Histone H3.3
 Localization: Nucleus, chromosome
 Formulation: Antibody in PBS pH7.4, containing BSA and ≤ 0.09% sodium azide (NaN₃)
 Storage: Store at 2°- 8°C
 Applications: IHC, IF, WB
 Package:

Description	Catalog No.	Size
Histone H3 Family 3A/H3F3A Concentrated	RM0084	1 ml

IHC Procedure*:

Positive Control Tissue: Colon, stomach
 Concentrated Dilution: 25-200
 Pretreatment: Citrate pH6.0 or EDTA pH8.0, 15 minutes using Pressure Cooker, or 30-60 minutes using water bath at 95°-99°C
 Incubation Time and Temp: Overnight @ 4°C
 Detection: Refer to the detection system manual
 * Result should be confirmed by an established diagnostic procedure.



FFPE mouse stomach stained with anti-H3F3A using DAB

References:

1. Non-coding Transcription Instructs Chromatin Folding and Compartmentalization to Dictate Enhancer-Promoter Communication and T Cell Fate. Isoda T, et al. Cell 171:103-119.e18, 2017.
2. Running training experience attenuates disuse atrophy in fast-twitch skeletal muscles of rats. Nakamura K, et al. J Appl Physiol. 123:902-913, 2017.