Product Datasheet

Histone H3K27me3 Polyclonal Antibody

Catalog No: #HW008

Package Size: #HW008-1 50ul #HW008-2 100ul

Orders: order@signalwayantibody.com
Support: tech@signalwayantibody.com

Description

Product Name	Histone H3K27me3 Polyclonal Antibody
Host Species	Rabbit
Clonality	Polyclonal
Isotype	IgG
Purification	Affinity purification
Applications	WB,IHC,IF
Species Reactivity	Human,Mouse,Rat
Immunogen Type	Peptide
Immunogen Description	A synthetic methylated peptide of human histone H3
Target Name	Histone H3
Modification	Methyl
Other Names	H3.4;H3/g;H3FT;H3t;HIST3H3;Histone H3;HIST1H3A
Accession No.	Uniprot:Q16695GeneID:8290
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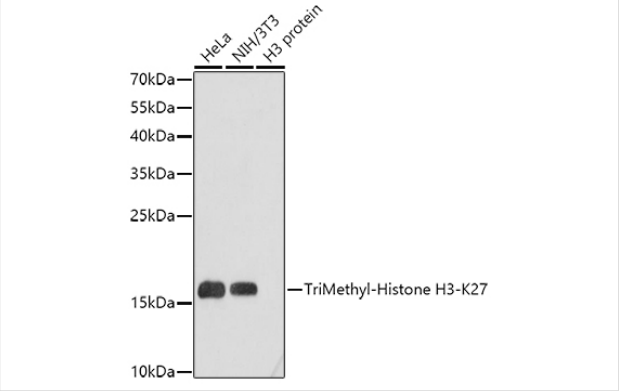
GeneID	8290
SDS-PAGE MW	17KDa
Concentration	1.0mg/ml
Formulation	PBS with 0.02% sodium azide,50% glycerol,pH7.3.
Storage	Store at -20°C. Avoid freeze / thaw cycles.

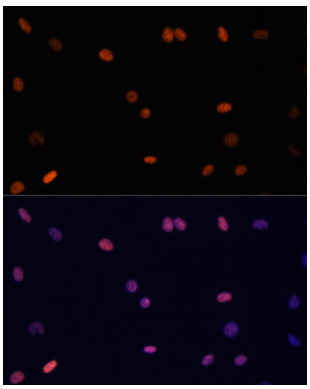
Application Details

WB□1:500 - 1:2000IHC□1:50 - 1:200IF□1:50 - 1:200

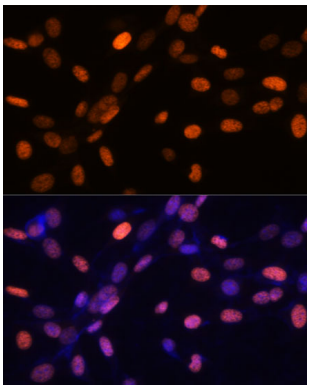
Images



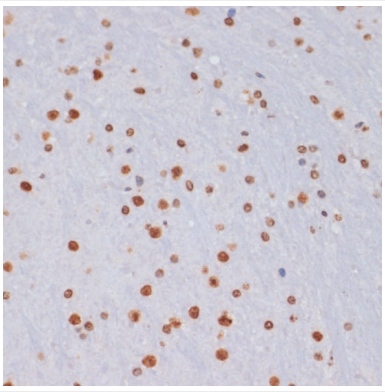
Western blot analysis of extracts of various cell lines, using TriMethyl-Histone H3-K27 antibody.



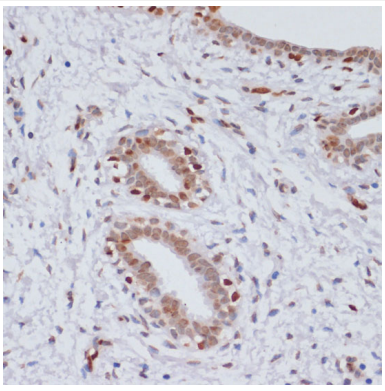
Immunofluorescence analysis of C6 cells using TriMethyl-Histone H3-K27 antibody.



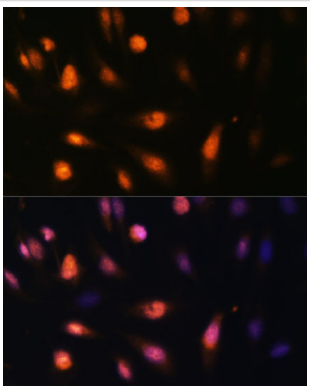
Immunofluorescence analysis of NIH/3T3 cells using TriMethyl-Histone H3-K27 antibody.



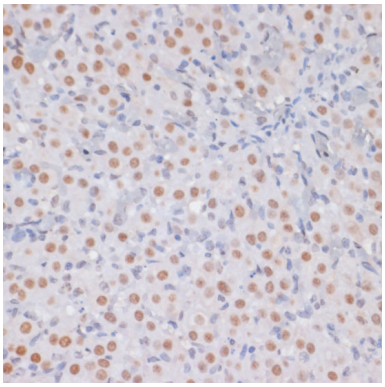
Immunohistochemistry of paraffin-embedded mouse brain using TriMethyl-Histone H3-K27 antibody.



Immunohistochemistry of paraffin-embedded human breast cancer using TriMethyl-Histone H3-K27 antibody.



Immunofluorescence analysis of U-2 OS cells using TriMethyl-Histone H3-K27 antibody.



Immunohistochemistry of paraffin-embedded rat ovary using TriMethyl-Histone H3-K27 antibody.

Background

Actin is a key regulator of RNA polymerase (Pol) II-dependent transcription. Positive transcription elongation factor b (P-TEFb), a Cdk9/cyclin T1 heterodimer, has been reported to play a critical role in transcription elongation. However, the relationship between actin and P-TEFb is still not clear. In this study, actin was found to interact with Cdk9, a catalytic subunit of P-TEFb, in elongation complexes. Using immunofluorescence and immunoprecipitation assays, Cdk9 was found to bind to G-actin through the conserved Thr-186 in the T-loop. Overexpression and in vitro kinase assays showed that G-actin promotes P-TEFb-dependent phosphorylation of the Pol II C-terminal domain. An in vitro transcription experiment revealed that the interaction between G-actin and Cdk9 stimulated Pol II transcription elongation. ChIP and immobilized template assays indicated that actin recruited Cdk9 to a transcriptional template in vivo and in vitro. Using cytokine IL-6-inducible p21 gene expression system, we revealed that actin recruited Cdk9 to endogenous gene. Moreover, overexpression of actin and Cdk9 increased histone H3 acetylation and acetylized histone H3 binding to a transcriptional template through the interaction with histone acetyltransferase, p300. Taken together, our results suggested that actin participates in transcription elongation by recruiting Cdk9 for phosphorylation of the Pol II C-terminal domain, and the actin-Cdk9 interaction promotes chromatin remodeling.

Note: This product is for in vitro research use only