## **Product Datasheet**

# Histone H3 [Trimethyl Lys4] Antibody - BSA Free NBP2-59186

Unit Size: 50 ug

Store at -20C. Avoid freeze-thaw cycles.

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#### NBP2-59186

Histone H3 [Trimethyl Lys4] Antibody - BSA Free

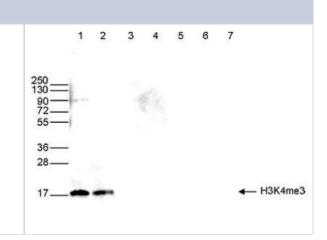
mistone H3 [Trimethyl Lys4] A	aniibody - BSA Free
<b>Product Information</b>	
Unit Size	50 ug
Concentration	Please see the vial label for concentration. If unlisted please contact technical services.
Storage	Store at -20C. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.05% Sodium Azide and 0.05% ProClin 300
Isotype	IgG
Purity	Peptide affinity purified
Buffer	PBS
Target Molecular Weight	15 kDa
<b>Product Description</b>	
Description	Novus Biologicals Rabbit Histone H3 [Trimethyl Lys4] Antibody - BSA Free (NBP2-59186) is a polyclonal antibody validated for use in WB, ICC/IF and ChIP. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	126961
Gene Symbol	H3C14
Species	Human, Mouse, A. thaliana
Immunogen	The exact sequence of the immunogen to this Histone H3 [Trimethyl Lys4] antibody is proprietary.
<b>Product Application Details</b>	
Applications	Western Blot, Dot Blot, Immunocytochemistry/ Immunofluorescence, Chromatin Immunoprecipitation (ChIP), Chromatin Immunoprecipitation Sequencing
Recommended Dilutions	Western Blot 1:500, Immunocytochemistry/ Immunofluorescence, Dot Blot

Immunoprecipitation Sequencing

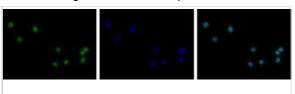
1:2000, Chromatin Immunoprecipitation (ChIP) 1-5 ug, Chromatin

# Images

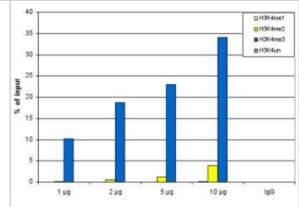
Western Blot: Histone H3 [Trimethyl Lys4] Antibody [NBP2-59186] - Western blot was performed on whole cell (40 ug, lane 1) and histone extracts (15 ug, lane 2) from HeLa cells, and on 1 ug of recombinant histone H2A, H2B, H3.1, H3.3 and H4 (lane 3, 4, 5, 6 and 7, respectively) using the antibody against H3K4me3. The antibody was diluted 1:500 in TBS-Tween containing 5% skimmed milk. Observed molecular weight is ~17 kDa.



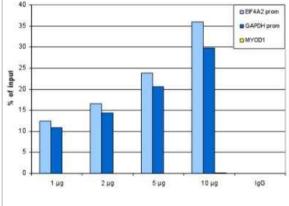
Immunocytochemistry/Immunofluorescence: Histone H3 [Trimethyl Lys4] Antibody [NBP2-59186] - HeLa cells were stained with the antibody against H3K4me3 and with DAPI. Cells were fixed with 4% formaldehyde for 10 minutes and blocked with PBS/TX-100 containing 5% normal goat serum and 1% BSA. The cells were immunofluorescently labelled with the H3K4me3 antibody (left) diluted 1:100 in blocking solution followed by an anti-rabbit antibody conjugated to Alexa Fluor 488. The middle panel shows staining of the nuclei with DAPI. A merge of the two stainings is shown on the right.



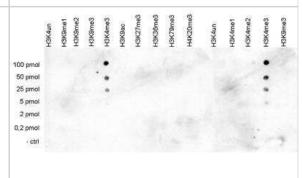
Chromatin Immunoprecipitation: Histone H3 [Trimethyl Lys4] Antibody [NBP2-59186] - Recovery of the nucleosomes carrying the H3K4me1, H3K4me2, H3K4me3 modifications and the unmodified H3K4 as determined by qPCR. The figure clearly shows the antibody is very specific in ChIP for the H3K4me3 modification. At higher concentrations some H3K4me2 is also precipitated.



Chromatin Immunoprecipitation: Histone H3 [Trimethyl Lys4] Antibody [NBP2-59186] - ChIP assays were performed using human HeLa cells, the Ab against H3K4me3 and PCR primers for qPCR. ChIP was performed using sheared chromatin from 1 million cells. The chromatin was spiked with a panel of in vitro assembled nucleosomes, each containing a specific lysine methylation (SNAP-ChIP K-MetStat Panel, Epicypher). IgG (2 ug/IP) was used as a negative IP control. Quantitative PCR was performed with primers specific for the promoter of the active GAPDH and EIF4A2 genes, used as positive controls, and for the inactive MYOD1 gene, used as negative control. The graph shows the recovery, expressed as a % of input (the relative amount of IP DNA compared to input DNA after qPCR analysis). These results are in accordance with the observation that trimethylation of K4 at histone H3 is associated with the promoters of active genes.



Dot Blot: Histone H3 [Trimethyl Lys4] Antibody [NBP2-59186] - A Dot Blot analysis was performed to test the cross reactivity of the antibody against H3K4me3 with peptides containing other modifications and unmodified sequences of histone H3 and H4. One hundred to 0.2 pmol of the respective peptides were spotted on a membrane. The antibody was used at a dilution of 1:2,000. Figure shows a high specificity of the antibody for the modification of interest.





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### **Products Related to NBP2-59186**

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NB7160 Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]

NBP2-24891 Rabbit IgG Isotype Control

NB21-1101PEP Histone H3 [p Thr11] Antibody Blocking Peptide

#### Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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