

## Rabbit Histone H3K27me2 Polyclonal Antibody | anti-H3K27me2 antibody

Histone H3K27me2 antibody (pAb)

| CATALOG # | HOST   | REACTIVITY                  | APPLICATIONS                                                                                                                                                            |
|-----------|--------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AAA59850  | Rabbit | Human, Wide Range Predicted | Western Blot, Immunofluorescence, Immunocytochemistry, Dot Blot, Chromatin Immunoprecipitation, Immunoprecipitation, Chromatin Immunoprecipitation, Immunoprecipitation |

### PRODUCT SYNONYMS

Histone H3K27me2; Polyclonal Antibody; Histone H3K27me2 antibody (pAb); anti-H3K27me2 antibody

### PRODUCT SPECIFICATIONS

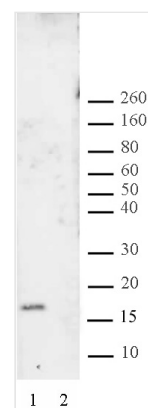
|                                                    |                                                                                                                                                                                                                                                                                           |
|----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                               | Rabbit                                                                                                                                                                                                                                                                                    |
| Reactivity                                         | Human, Wide Range Predicted                                                                                                                                                                                                                                                               |
| Clonality                                          | Polyclonal                                                                                                                                                                                                                                                                                |
| Form/Format                                        | Rabbit serum containing 30% glycerol and 0.035% sodium azide. Sodium azide is highly toxic. For your convenience, an IgG version of this antibody that was purified by Protein A Chromatography is also available.                                                                        |
| Applicable Applications for anti-H3K27me2 antibody | WB (Western Blot), IF (Immunofluorescence), ICC (Immunocytochemistry), DB (Dot Blot), ChIP (Chromatin immunoprecipitation), ChIP (Chromatin immunoprecipitation)                                                                                                                          |
| Conjugation                                        | Methylated                                                                                                                                                                                                                                                                                |
| Immunogen                                          | This Histone H3 dimethyl Lys27 antibody was raised against a peptide including dimethyl-lysine 27 of histone H3.                                                                                                                                                                          |
| Abs Residue                                        | Lys                                                                                                                                                                                                                                                                                       |
| Preparation and Storage                            | Some products may be shipped at room temperature. This will not affect their stability or performance. Avoid repeated freeze/thaw cycles by aliquoting items into single-use fractions for storage at -20 degree C for up to 2 years. Keep all reagents on ice when not in storage.1ug/ul |

### IMAGES



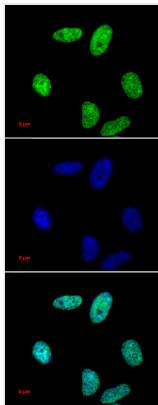
#### DB (Dot Blot)

Histone H3 dimethyl Lys27 antibody tested by dot blot analysis. Dot blot analysis was used to confirm the specificity of Histone H3 dimethyl Lys27 antibody for dimethyl Lys27 histone H3. Methylated peptides corresponding to the immunogen and related sequences derived from histone H3 were spotted onto PVDF and probed with the antibody at a 1:5,000 dilution. The amount of peptide (picomoles) spotted is indicated next to each row. Lane 1: Unmodified lysine 4 peptide. Lane 2: Monomethyl lysine 4 peptide. Lane 3: Dimethyl lysine 4 peptide. Lane 4: Trimethyl lysine 4 peptide. Lane 5: Unmodified lysine 9 peptide. Lane 6: Monomethyl lysine 9 peptide. Lane 7: Dimethyl lysine 9 peptide. Lane 8: Trimethyl lysine 9 peptide. Lane 9: Unmodified lysine 27 peptide. Lane 10: Monomethyl lysine 27 peptide. Lane 11: Dimethyl lysine 27 peptide. Lane 12: Trimethyl lysine 27 peptide.



#### WB (Western Blot)

Histone H3 dimethyl Lys27 antibody tested by Western blot. Detection of Histone H3 dimethyl Lys27 by Western blot. The analysis was performed using Histone H3 dimethyl Lys27 antibody at a 1:1,000 dilution. Lane 1: HeLa acid extract (20 ug per lane). Lane 2: Recombinant histone H3 (200 ng).



#### IF (Immunofluorescence)

Histone H3 dimethyl Lys27 antibody tested by immunofluorescence. Staining of HeLa cells with Histone H3 dimethyl Lys27 antibody (1:500 dilution, top panel) and DAPI (middle panel), and a merge of both images (bottom panel).



#### ChIP (Chromatin Immunoprecipitation)

Histone H3K27me2 antibody (pAb) tested by ChIP-Seq. Chromatin immunoprecipitation (ChIP) was performed using the ChIP-IT High Sensitivity Kit with 30 ug of chromatin from lung tumor chromatin and 6 ul Histone H3K27me2 antibody. ChIP DNA was sequenced on the Illumina HiSeq and 9.1 million sequence tags were mapped to identify Histone H3K27me2 binding sites.



#### ChIP (Chromatin Immunoprecipitation)

Histone H3 dimethyl Lys27 antibody tested by ChIP. Chromatin IP performed using the ChIP-IT Express Kit and 50 ul of Ready-to-ChIP HeLa Chromatin per ChIP. Subsequent to the ChIP reaction, DNA was purified from the immunoprecipitated chromatin and a region approximately 1000 base pairs 5' of the transcriptional start site of the HoxD13 gene was amplified by PCR. Lane 1: ChIP using negative control rabbit IgG. Lane 2: ChIP using 10 ul of Histone H3 dimethyl Lys27 antibody. Lane 3: PCR input control.

## ADDITIONAL INFORMATION

#### Related Product Information for anti-H3K27me2 antibody

**Short Description:** Our Histone H3K27me2 antibody (pAb) was raised in a Rabbit host. It has been validated for use in Chromatin Immunoprecipitation, ChIP-Seq, Dot blot, Immunocytochemistry, Immunofluorescence and Western blot; it has been shown to react with Human samples, but it is predicted that it will react with a wide range of sample types.

**Background:** Histone H3 is one of the core components of the nucleosome. The nucleosome is the smallest subunit of chromatin and consists of 147 base pairs of DNA wrapped around an octamer of core histone proteins (two each of Histone H2A, Histone H2B, Histone H3 and Histone H4). Histone H1 is a linker histone, present at the interface between the nucleosome core and DNA entry/exit points; it is responsible for establishing higher-order chromatin structure. Chromatin is subject to a variety of chemical modifications, including post-translational modifications of the histone proteins and the methylation of cytosine residues in the DNA. Reported histone modifications include acetylation, methylation, phosphorylation, ubiquitylation, glycosylation, ADP-ribosylation, carbonylation and SUMOylation; they play a major role in regulating gene expression. Histone H3K27 can be mono-, di- or trimethylated by different histone methyltransferases, such as EZH2 or NSD3. While histone methylation can be associated with transcriptional activation or repression, methylation of Lysine 27 of histone H3 is mainly associated with transcriptional repression.

#### Product Categories/Family for anti-H3K27me2 antibody

[Primary Antibodies](#)

## NCBI AND UNIPROT INFORMATION

#### Molecular Weight

17kDa

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

