

AbFlex® Histone H3K27me3 antibody (rAb)

Catalog Nos: 91167, 91168

RRID: AB_2793791

Application(s): CUT&Tag, DB, WB

Reactivity: Human, Wide Range Predicted

Quantities: 100 µg, 10 µg

Purification: Protein A Chromatography

Host: Rabbit

Isotype: IgG

Concentration: 1 µg/µl

Molecular Weight: 17 kDa

Background: AbFlex® antibodies are recombinant antibodies (rAbs) that have been generated using defined DNA sequences to produce highly specific, reproducible antibodies. Each AbFlex antibody contains a 6xHis Tag, a Biotinylation Tag for enzymatic biotin conjugation using the biotin ligase, BirA, and a sortase recognition motif (LPXTG) to attach a variety of labels directly to the antibody including fluorophores, enzymatic substrates (HRP, AP), peptides, drugs as well as solid supports. AbFlex® Histone H3K27me3 antibody was expressed in 293 cells, and contains rabbit immunoglobulin heavy and light chains.

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). The methylation of histones can occur on two different residues: arginine or lysine. Histone methylation can be associated with transcriptional activation or repression, depending on the methylated residue. Lysine 27 of histone H3 can be mono-, di- or trimethylated (Histone H3 monomethyl Lys27, Histone H3 dimethyl Lys27 or Histone H3 trimethyl Lys27) by different histone methyltransferases such as EZH2 or NSD3. Methylation of this residue is mainly associated with transcriptional repression.

Immunogen: This Histone H3 trimethyl Lys27 antibody was raised against a peptide containing trimethyl Lys27 of human Histone H3.

Buffer: 140 mM Hepes, pH 7.5, 70 mM NaCl, 32 mM NaOAc, 0.035% sodium azide, and 30% glycerol. Sodium azide is highly toxic.

Application Notes:

Applications Validated by Active Motif:

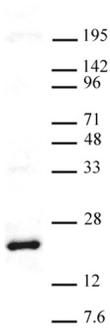
WB: 0.1 - 1 µg/ml

CUT&Tag: 1-2 µg per 50 µl reaction

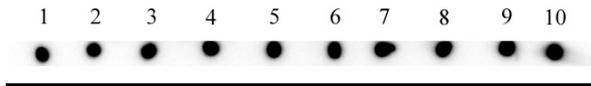
Note: For optimal results, we recommend a High Salt / Sonication Protocol when preparing nuclear extracts for Western blot.

Storage and Guarantee: 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°C for up to 2 years. Keep all reagents on ice when not in storage. This product is guaranteed for 12 months from date of receipt.

This product is for research use only and is not for use in diagnostic procedures.



AbFlex® Histone H3K27me3 antibody (rAb) tested by Western blot.
 20 µg of HeLa cell nuclear extract* was run on SDS-PAGE and probed with AbFlex Histone H3K27me3 antibody at 0.5 µg/ml.



AbFlex® Histone H3K27me3 antibody specificity is shown by Dot Blot. Recombinant proteins were spotted onto PVDF as follows: Lane 1 - Histone H3 (C110A), Cat. No. 31207; Lane 2 - Histone H3K27me1 (MLA), Cat. No. 31621; Lane 3 - Histone H3K27me2 (MLA), Cat. No. 31597; Lane 4 - Histone H3K27me3 (MLA), Cat. No. 31579. Lane 5 - Histone H3K4me1 (MLA), Cat. No. 31619; Lane 6 - Histone H3K4me2 (MLA), Cat. No. 31595; Lane 7 - Histone H3K4me3 (MLA), Cat. No. 31600; Lane 8 - Histone H3K9me1 (EPL), Cat. No. 31281; Lane 9 - Histone H3K9me2 (EPL), Cat. No. 31596; Lane 10 - Histone H3K9me3 (EPL), Cat. No. 31601; Top Panel was probed with Histone H3 antibody (mAb) at 2 µg/ml. Bottom Panel was probed with AbFlex Histone H3K27me3 antibody at 2 µg/ml.

AbFlex® Histone H3K27me3 antibody (rAb) tested by CUT&Tag

CUT&Tag was performed using 100,000 K562 cells and sequenced using 38 base-pair, paired-end reads on the Illumina NovaSeq. Data was collected from 3 million reads, and H3K27me3 data is shown for Chromosome 21.

