

Rabbit H3.3K27acS31ph Antibody | anti-H3.3K27acS31ph antibody

AbFlex H3.3K27acS31ph antibody (rAb)

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA60421	Rabbit	Human, Wide Range Predicted	Western Blot, Dot Blot, Chromatin Immunoprecipitation, Immunoprecipitation

PRODUCT SYNONYMS

H3.3K27acS31ph; AbFlex H3.3K27acS31ph antibody (rAb); anti-H3.3K27acS31ph antibody

PRODUCT SPECIFICATIONS

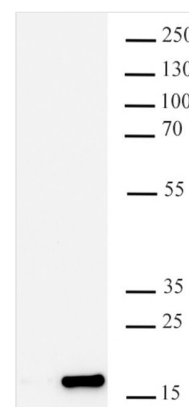
Host	Rabbit
Reactivity	Human, Wide Range Predicted
Isotype	IgG
Purity/Purification	Protein A Chromatography
Form/Format	Purified IgG in 140 mM Hepes, pH 7.5, 70 mM NaCl, 32 mM NaOAc, 30% glycerol and 0.035% sodium azide. Sodium azide is highly toxic.
Concentration	1 (varies by lot)
Applicable Applications for anti-H3.3K27acS31ph antibody	WB (Western Blot), DB (Dot Blot), ChIP (Chromatin immunoprecipitation)
Immunogen	This antibody was raised against a peptide containing acetyl-lysine 27 of human Histone H3 sequence phosphorylated at serine 31.
Abs Residue	Ser
Modification	Phosphorylated
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.

IMAGES



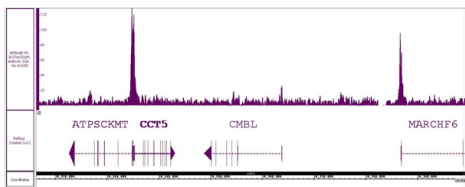
DB (Dot Blot)

Histone H3.3 acetyl-lysine 27 phospho Ser31 rAb tested by dot blot analysis. Dot blot analysis was used to confirm the specificity of Histone H3.3 acetyl-lysine 27 phospho Ser31. Peptides corresponding to regions around major sites of histone H3 phosphorylation (serine 10, serine 28 and serine 31) were spotted onto Nitrocellulose and probed with 91425 at 4 ug/mL. The amount of peptide (in picomoles) spotted is indicated next to each row. Lane 1: Peptide H3.3 acetyl-lysine 27 phospho Ser31. Lane 2: Peptide H3.3 phospho Ser31. Lane 3: Peptide H3.3 acetyl-lysine 27. Lane 4: Unmodified H3.3 peptide. Lane 5: Peptide H3.1 acetyl-lysine 27 phospho Ser28. Lane 6: Peptide H3.1 acetyl-lysine 9 phospho Ser10.



WB (Western Blot)

AbFlex Histone H3.3K27acS31ph rAb antibody tested by Western blot. Detection of H3.3K27acS31ph by Western blot analysis using 15 ug HeLa acid extracts and probed with antibody at 0.5 ug/ml. Lane 1: Acid extract of untreated HeLa cells. Lane 2: Acid extract of HeLa cells treated with sodium butyrate.



ChIP (Chromatin Immunoprecipitation)
 AbFlex H3.3K27acS31ph antibody (rAb) tested by ChIP-Seq. ChIP was performed using the ChIP-IT High Sensitivity Kit with 30 ug of chromatin from HeLa cells and 5 ug of antibody. ChIP DNA was sequenced on the Illumina HiSeq and 17 million sequence tags were mapped to identify H3.3K27acS31ph binding sites. The image shows binding across a region of chromosome 5.

ADDITIONAL INFORMATION

Related Product Information for anti-H3.3K27acS31ph antibody	AbFlex H3.3K27acS31ph antibody (rAb) was raised in a Rabbit host. It has been validated for use in ChIP-Seq, Dot blot 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. 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 H3.3K27acS31ph antibody was expressed as full-length IgG with mouse immunoglobulin heavy and light chains (IgG2a isotype) in mammalian 293 cells. The antibody was directly labeled with biotin using the biotin ligase, BirA. Histone H4 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). 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; these modifications play a major role in regulating gene expression. One of the histone variants, H3.3, has a difference of 4 to 5 amino acid residues between the sequence variants of H3 (H3.1 and H3.2). TThe only contrasting residue is serine, contained at the N-terminus of the protein at position 31. Ser31 phosphorylation is known as a mitotic epigenetic modification. H3K27ac is also preferentially deposited in H3.3, therefore this H3.3K27acS31ph antibody was developed due to the high likelihood that H3.3 proteins contain the dual modification of both acetylation at lysine residue 27 and phosphorylation at serine residue 31.
Product Categories/Family for anti-H3.3K27acS31ph antibody	Primary Antibodies

NCBI AND UNIPROT INFORMATION

NCBI GI #	4504279
NCBI GeneID	3020
NCBI Accession #	NP_002098
NCBI GenBank Nucleotide #	NM_002107.4
UniProt Accession #	P84243; P06351; P33155; Q5VV55; Q5VV56; Q66I33; Q9V3W4
Molecular Weight	17.7kDa (159aa)
NCBI Official Full Name	histone H3.3
NCBI Official Synonym Full Names	H3 histone family member 3A
NCBI Official Symbol	H3F3A
NCBI Official Synonym Symbols	H3F3; H3.3A
NCBI Protein Information	histone H3.3
UniProt Protein Name	Histone H3.3

UniProt Gene Name	H3F3A
UniProt Synonym Gene Names	H3.3A; H3F3
UniProt Entry Name	H33_HUMAN

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.

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Online datasheet: <https://www.aaabiotech.com/rabbit-human-antibody/h3-3k27acs31ph/60421>