H3K27ac Polyclonal Antibody

Product Details	
Size	100 µg
Species Reactivity	Human
Published Species	Human
Host/Isotype	Rabbit / IgG
Class	Polyclonal
Type	Antibody
Conjugate	Unconjugated
Immunogen	Acetylated peptide (Lys27) corresponding to Human H3 (aa 24-31)
Form	Liquid
Concentration	0.5 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with 0.1% BSA, 30% glycerol
Contains	0.09% sodium azide
Storage conditions	Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.
RRID	AB_2532805

Applications	Tested Dilution	Publications
Western Blot (WB)	1-2 µg/mL	1 Publication
Immunocytochemistry (ICC/IF)	0.5 µg/mL	-
ChIP assay (ChIP)	-	3 Publications
Peptide array (Array)	0.25 µg/mL	-

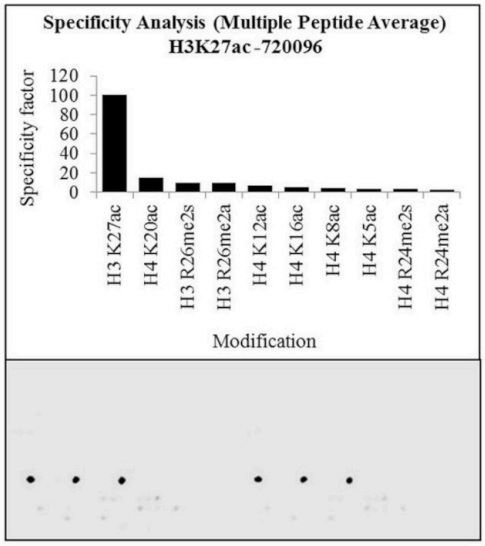
Product Specific Information

These Polyclonal antibodies are of rabbit origin developed by immunizing animals with proteins or peptides. The polyclonal antibody is purified by affinity purification from the rabbit sera generated after immunizing the rabbits with a specific type of protein or peptide. The purified antibody is tested for its functionality in various relevant research applications. The antibody is developed for Research Use Only and is non-hazardous or non-infectious in nature.

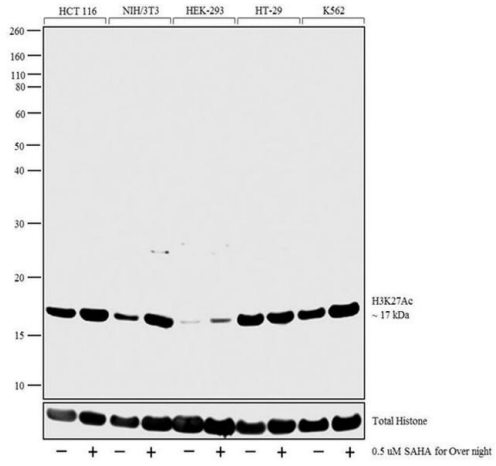
720096 was used in western blot to successfully detect H3K27ac in acid extracted histones from human cells.

Since it is conserved across species, the antibody may react with many other species.

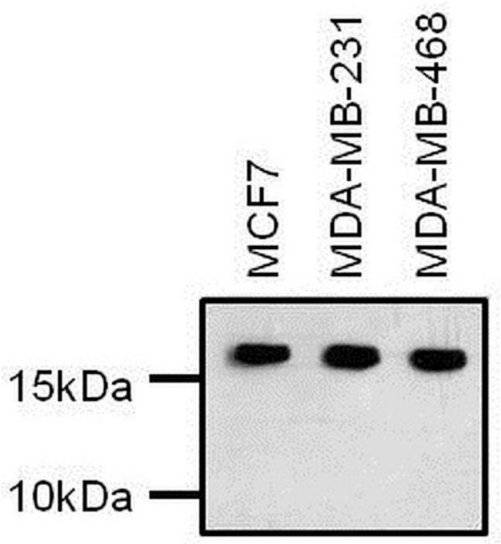
Product Images For H3K27ac Polyclonal Antibody



H3K27ac Antibody (720096)
Antibody specificity for modified targets can be established using peptide arrays by quantifying detection of the target protein along with closely related proteins. Peptide array of Histone H3K27Ac using Anti-Acetyl-Histone H3 (Lys27) Polyclonal Antibody: An array of the specific peptide and other relevant peptides when tested using Anti-Acetyl-Histone H3 (Lys27) Polyclonal Antibody (Product # 720096), showed that the Histone H3K27Ac modification was specifically recognized by the antibody. {ARRAY}



H3K27ac Antibody (720096) in WB
Western blot analysis was performed on acid cell extracts (30 µg lysate) of HCT116 (Lane1), HCT116 treated with SAHA (Lane 2), NIH/3T3 (Lane 3), NIH /3T3 treated with SAHA (Lane 4), HEK-293 (Lane 5), HEK-293 treated with SAHA (Lane 6), HT-29 (Lane 7), HT-29 treated with SAHA (Lane 8), K562 (Lane 9), K562 treated with SAHA (0.5 uM/16 hours) (Lane 10). The blots were probed with Anti-Histone H3K27ac Rabbit Polyclonal Antibody (Product # 720096, 1-2 µg /mL) and detected by chemiluminescence using Goat anti-Rabbit IgG (Heavy Chain) Superclonal™ Secondary Antibody, HRP conjugate (Product # A27036, 0.4 µg/mL, 1:2500 dilution). A clear 17kDa band corresponding to Histone H3K27ac was observed across cell lines tested. Known quantity of protein samples were electrophoresed using Novex® NuPAGE® 4-12% Bis-Tris gel (Product # NP0321BOX), XCell SureLock™ Electrophoresis System (Product # EI0002), and Novex® Sharp Pre-Stained Protein Standard (Product # LC5800). Resolved proteins were then transferred onto a nitrocellulose membrane with iBlot® Dry Blotting System (Product # IB21001). The membrane was probed with the relevant primary and secondary antibody following blocking with 5% skimmed milk. Chemiluminescent detection was performed using Pierce™ ECL Western Blotting Substrate (Product # 32106).



H3K27ac Antibody (720096) in WB
Western blot analysis of Histone H3K27ac was performed by loading 1 µg of from MCF7 (lane 1), MDA-MB -231 (lane 2) and MDA-MB-468 (lane 3) HCl extracted histones. 4 µL Page-Ruler Prestained Protein Ladder (Product # 26619) per well was loaded onto a 14% Tris-HCl polyacrylamide gel. Proteins were transferred to a nitrocellulose membrane and blocked with 5% Milk/PBST for at least 1 hour at room temperature. Histone H3K27ac antibody (Product # 720096) was diluted 1:3000 in blocking buffer overnight at 4°C on a rocking platform, followed by a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10,000 for at least 1 hour. Chemiluminescent detection was performed using SuperSignal West Pico (Product # 34077) and H3K27ac was detected approximately 17 kDa. Data courtesy of Dr. Wei Xu's lab.

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4 References

Western Blot (1)

Cells

Androgen Receptor-Activated Enhancers Simultaneously Regulate Oncogene *TMPRSS2* and lncRNA *PRCAT38* in Prostate Cancer.

"720096 was used in Western Blotting to show chromatin looping by enhancers E1 and E2 with the promoters for prostate cancer-associated transcript 23 and transmembrane protease serine 2, indicating the co-regulation of PRCAT38 and TMPRSS2 by the same enhancers."

Authors: Chen Z,Song X,Li Q,Xie L,Guo T,Su T,Tang C,Chang X,Liang B,Huang D

Year
2019

Species
Human

ChIP assay (3)

Frontiers in immunology

Purine-Induced IFN- Promotes Uric Acid Production by Upregulating Xanthine Oxidoreductase Expression.

"720096 was used in ChIP assay to explore whether exogenous purines are responsible for increased xanthine oxidoreductase expression and activity."

Authors: Wang H,Xie L,Song X,Wang J,Li X,Lin Z,Su T,Liang B,Huang D

Year
2022

Species
Human

Cells

Androgen Receptor-Activated Enhancers Simultaneously Regulate Oncogene *TMPRSS2* and lncRNA *PRCAT38* in Prostate Cancer.

"720096 was used in Western Blotting to show chromatin looping by enhancers E1 and E2 with the promoters for prostate cancer-associated transcript 23 and transmembrane protease serine 2, indicating the co-regulation of PRCAT38 and TMPRSS2 by the same enhancers."

Authors: Chen Z,Song X,Li Q,Xie L,Guo T,Su T,Tang C,Chang X,Liang B,Huang D

Year
2019

Species
Human

View more ChIP references on thermofisher.com