

# Repeat(Ab)le

## Epigenetics Antibodies

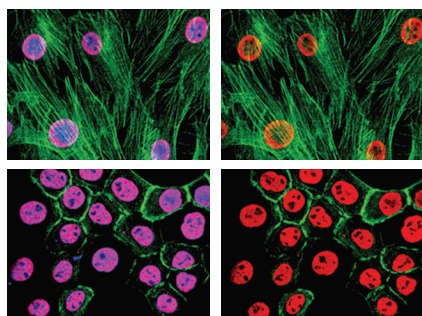
We know repetition is a part of the Scientific Method. But because our antibody development process minimizes lot-to-lot variation, you can publish your results with confidence.

EMD Millipore has developed technology that addresses three pivotal areas of epigenetics research that are playing substantial roles in the control of epigenetic gene expression and inheritance: DNA methylation, histone modification, and—more recently—RNA-associated gene silencing events and modification, now called RNA epigenetics. We offer an extensive, focused portfolio of antibodies and immunoassays, including validated antibodies for effective immunoprecipitation of chromatin, RNA-binding proteins, modified histones, and transcriptional proteins.



Validated Antibodies  
for Key Research Areas:

- Cancer
- Cell Signaling
- Cell Structure
- ChIPAb+™/RIPAb+™
- Chromatin-Associated
- Epigenetics ✓
- Neuroscience
- Stem Cell



Confocal immunocytochemistry fluorescent analysis of NIH/3T3 cells (top rows) and A431 cells (bottom row). Positive nuclear staining with Anti-acetyl-Histone H3 Ab (06-599, red). Actin filaments labeled with AlexaFluor®488 Phalloidin (green). Nuclear staining with DAPI (blue).

# Primary Antibodies for Epigenetic Research

The basic principle that underlies all immunochemical techniques is that a specific antibody will combine with its target antigen to generate an exclusive antibody-antigen complex. The specificity of primary antibodies, ideally monoclonal antibodies, enables them to be used for the initial detection of the target of interest in the study of cellular pathways and mechanisms, be they native or disrupted by disease states.

Primary Antibody	Species Reactivity	Key Applications	Host	Format	Type	Cat. No.
Anti-acetyl-Histone H3	H, M, R	ChIP, ChIP-seq, IC, WB	Rb	Purified	Poly	06-599
Anti-acetyl-Histone H3 (Lys9)	H, M, R	ChIP, ChIP-seq, DB, FC, WB	Rb	Purified	Poly	06-942
Anti-acetyl-Histone H3 (Lys9)	H, <i>S. cerevisiae</i> , Vrt	ChIP, ChIP-seq, Mplex, WB	Rb	Serum	Poly	07-352
Anti-acetyl-Histone H4	Eu, H, T	ChIP, IC, WB	Rb	Serum	Poly	06-866
Anti-acetyl-Histone H4 (Lys16)	H, M, R	ChIP, ChIP-seq, DB, Mplex, PIA, WB	Rb	Affinity purified	Poly	07-329
Anti-Active- $\beta$ -Catenin (Anti-ABC), clone 8E7	H, M, R	FC, IC, IH, IH(P), WB	M	Purified	Mono	05-665
Anti-dimethyl-Histone H3 (Lys4)	H, T	ChIP, ChIP-seq, DB, IC, IF, PIA, WB	Rb	Unpurified	Poly	07-030
Anti-dimethyl-Histone H3 (Lys9)	Ch, H, M, R, <i>S. pombe</i>	DB, IC, PIA, WB	Rb	Purified	Poly	07-441
Anti-phospho-CREB (Ser133)	Ht, H, M, R	EMSA, IH, IH(P), IP, WB	Rb	Purified	Poly	06-519
Anti-phospho-Histone H2A.X (Ser139), clone JBW301	Vrt	ChIP, IC, IF, WB	M	Purified	Mono	05-636
Anti-phospho-Histone H2A.X (Ser139), clone JBW301, FITC conjugate	H	IC, FC	M	FITC	Mono	16-202A
Anti-phospho-Histone H3 (Ser10), Mitosis Marker	H, M	IC, IP, WB	Rb	Purified	Poly	06-570
Anti-trimethyl Histone H3 (Lys27)	H, M	DB, IC, PIA, WB	Rb	Affinity purified	Poly	ABE44
Anti-trimethyl-Histone H3 (Lys27)	H, M	ChIP-seq, IC, IH, IP, Mplex, WB	Rb	Purified	Poly	07-449
Anti-trimethyl-Histone H3 (Lys4)	H, Vrt	ChIP, ChIP-seq, DB, WB	Rb	Affinity purified	Poly	07-473
Anti-trimethyl-Histone H3 (Lys4), clone MC315, rabbit monoclonal	H	ChIP-seq, DB, Mplex, WB	Rb	CS	Mono	04-745
Anti-trimethyl-Histone H3 (Lys9)	Ch, H, M, R	ChIP-seq, DB, IC, Mplex, PIA, WB	Rb	Purified	Poly	07-442
Anti-ubiquityl-Histone H2A, clone E6C5	Am, H, Mk, M, R	ChIP, IC, WB	M	Purified	Mono	05-678

For a complete offering of antibodies for epigenetics research, please visit:  
[www.emdmillipore.com/epigenetics](http://www.emdmillipore.com/epigenetics)

# Secondary Antibodies for Epigenetic Research

Secondary antibodies are often used to amplify the detection of an antigen that a primary antibody is first bound to. It is therefore important to select a secondary antibody that has specificity for the species and isotype of the primary antibody. In addition, the secondary antibody must be conjugated to a suitable tag or label for optimal detection.

Secondary Antibody	Species Reactivity	Key Applications	Host	Isotype	Conj.	Cat. No.
Anti-Green Fluorescent Protein	Vrt	ELISA, IC, IH, WB	Rb			AB3080
Anti-Myc Tag, clone 4A6	H	ChIP-seq, IC, IF, IP, WB	M	IgG		05-724
Anti-SBP-tag, clone 20	H	IC, WB	M	IgG <sub>1κ</sub>		MAB10764
Donkey Anti-Goat IgG, HRP conjugate, Species Adsorbed	Gt	ELISA, IH, WB	Dk	IgG	HRP	AP180P
Donkey Anti-Mouse IgG, FITC conjugate, Species Adsorbed	M	IF	Dk	IgG	FITC	AP192F
Donkey Anti-Mouse IgG, HRP conjugate, Species Adsorbed	M	ELISA, WB	Dk	IgG	HRP	AP192P
Donkey Anti-Rabbit IgG, HRP conjugate, Species Adsorbed	Rb	ELISA, WB	Dk	IgG	HRP	AP182P
Goat Anti-Human Ig κ chain, HRP conjugate, Species Adsorbed	H	ELISA	Gt	IgK	HRP	AP502P
Goat Anti-Human IgA, α-Chain Specific Alkaline Phosphatase Conjugate	H	EIA, IEP	Gt	IgA	Alk Phos	401132-1ML
Goat Anti-Human IgG, heavy and light chains	H	IP	Gt	IgG		AB22-2ML
Goat Anti-Mouse IgG, (H+L) FITC Conjugated	M	IF	Gt	IgG	FITC	AP124F
Goat Anti-Mouse IgG, Alkaline Phosphatase conjugate	M	ELISA, WB	Gt	IgG	Alk Phos	AP124A
Goat Anti-Mouse IgG, F(ab') <sub>2</sub> , FITC conjugate	M	IF	Gt	IgG	FITC	AQ303F
Goat Anti-Mouse IgG, HRP conjugate	M	ELISA, IH, WB	Gt	IgG	HRP	12-349
Goat Anti-Mouse IgG, HRP conjugate, Species Adsorbed	M	ELISA, WB	Gt	IgG	HRP	AP181P
Goat Anti-Mouse IgG, Peroxidase Conjugated, H+L	M	ELISA, IH, WB	Gt	IgG	HRP	AP124P
Goat Anti-Rabbit IgG, HRP-conjugate	Rb	ELISA, IH, WB	Gt	IgG	HRP	12-348
Goat Anti-Rabbit IgG, Peroxidase Conjugated	Rb	ELISA, IH, WB	Gt	IgG	HRP	AP132P
Goat Anti-Rabbit γ-Globulin	Rb	IEP, RIA	Gt	IgG		539844-125U
His•Tag® Monoclonal		IP, IL, WB		IgG1		70796-3
Mouse Anti-Human IgG, Fc, all subclasses, clone MK1A6	H	ELISA, IF, HI, IH	M	IgG1		CBL101
Normal Rabbit IgG		IP, WB	Rb	IgG		12-370
Rabbit Anti-Goat IgG, HRP conjugate	Gt	ELISA, IH, WB	Rb	IgG	HRP	AP106P
S•Tag™ Monoclonal		IB, IF, IP		IgG <sub>2b</sub>		71549-3

For a complete offering of antibodies for epigenetics research, please visit:  
[www.emdmillipore.com/epigenetics](http://www.emdmillipore.com/epigenetics)

# Small Molecules for Epigenetic Research

Chemical genetics, in which function is disrupted using small molecules, can shed light on specific disease state mechanisms. Small-molecule compounds, including inhibitors, activators, and other pathway modulators, are critical cellular transduction research tools.

Small Molecule Inhibitor or Activator	Cat. No.
Adenosine 3',5'-cyclic Monophosphate, N <sup>6</sup> ,O2'-Dibutyryl-, Sodium Salt	28745
Cdk1 Inhibitor IV, RO-3306	217699
Cycloheximide	239763
Foxo1 Inhibitor, AS1842856	344355
Hygromycin B, <i>Streptomyces</i> sp.	400051
Lactimidomycin	506291
Latrunculin A, <i>Latrunculia magnifica</i>	428021
Necrostatin-1	480065
PP1 Analog II, 1NM-PP1	529581
Tunicamycin, <i>Streptomyces lysosuperficus</i>	654380

## LEGEND:

**Species:** A=all, Am=amphibian, Av=avian, B=bovine, Ca=canine, Ch=chicken, Chp=chimpanzee, Dk=donkey, Dr=drosophila, Eu=eukaryote, F=fish, Fe=feline, Fg=frog, Ft=ferret, Gp=guinea pig, Gt=goat, Ht=hamster, H=human, Lz=lizard, Ma=mammal, Mk=monkey, Ml=mollusk, M=mouse, Op=opossum, Pl=green plant, Pm=primate, Po=pig, R=rat, Rb=rabbit, Rmk=Rhesus macaque, Sal=salamander, Sh=sheep, Sqd=squid, Su=sea urchin, T=tetrahymena, Vo=vole, Vrt=vertebrate, Xn=xenopus, Zf=zebrafish

**Applications:** CFA=cell function assay, ChIP=chromatin immunoprecipitation, ChIP-seq=chromatin immunoprecipitation sequencing, DB=dot blot, EIA=enzyme immunoassay, EMSA=electrophoretic mobility shift assay, FC=flow cytometry, FUNC=affects function, HI=hemagglutination inhibition, IAP=immunoaffinity purification, IB=immunoblotting, IC=immunocytochemistry, IEP=immunoelectrophoresis, IF=immunofluorescence, IH=immunohistochemistry, IH(P)=immunohistochemistry (paraffin), IL=immunolocalization, IP=immunoprecipitation, Mplex=multiplexing, NEUT=neutralizing, PIA=peptide inhibition assay, RIA=radioimmunoassay, RIP=RNA immunoprecipitation, WB=western blotting

**Format:** Alk Phos=alkaline phosphatase, CS=culture supernatant

**Type:** Mono=monoclonal antibody, Poly=polyclonal antibody

**Isotype:** IgA=immunoglobulin A, IgG=immunoglobulin G, IgK=immunoglobulin K

**Conjugation:** Alk Phos=alkaline phosphatase, FITC=fluorescein isothiocyanate, HRP=horseradish peroxidase



[www.emdmillipore.com/Ab](http://www.emdmillipore.com/Ab)

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