

# Cite(Ab)le

### Chromatin-Associated Antibodies

When your reputation is on the line, the risk is considerable. Select antibodies that have been meticulously validated. We stake our reputation on it.

Modifications to chromatin structure—the genomic DNA and associated nuclear proteins such as histones—and the interplay of chromatin proteins influence epigenetic regulation. Site-specific histone modifications may make chromatin more or less accessible to transcriptional complexes regulating processes such as transcription, repair, recombination, and replication. EMD Millipore offers an extensive, focused portfolio of immunoassays and validated antibodies for effective immunoprecipitation of chromatin, RNA-binding proteins, modified histones, and transcriptional proteins.



Cancer

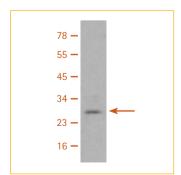
Cell Signaling

Cell Structure

ChIPAb+™/RIPAb+™

#### Chromatin-Associated 🕢

Epigenetics
Neuroscience
Stem Cell



Western Blot: 10  $\mu$ g acid-extracted HeLa cell lysate probed with Anti-HP1 $\alpha$ , clone15.19s2 (0.8  $\mu$ g/mL).

### Primary Antibodies for Chromatin-Associated 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.

	Species					
Primary Antibody	Reactivity	Key Applications	Host	Format	Туре	Cat. No.
Anti-Bmi-1, clone F6	H, M, R, Rb	IC, IP, WB	P, WB M Purified		Mono	05-637
Anti-CoREST	H, M, R	IC, IH, IP, WB	Rb	Purified	Poly	07-455
Anti-CTCF	Ca, H, M, Pm, R	ChIP, ChIP-seq, WB	Rb	Serum	Poly	07-729
Anti-EED	H, M	WB	Rb	Purified	Poly	09-774
Anti-EED, clone AA19	H, M	WB	М	Ascites	Mono	05-1320
Anti-EZH2	H, M	ChIP-seq, IP, WB	Rb	Serum	Poly	07-689
Anti-Heterochromatin Protein-1 γ, clone 2MOD-1G6	H, M, R	ELISA, IC, IF, IH, WB	M	Ascites	Mono	MAB3450
Anti-Heterochromatin Protein-1 β, clone 1MOD-1A9	H, M	ELISA, IC, IH, IP, WB	М	Ascites	Mono	MAB3448
Anti-HMGN2/HMG-17	B, H, M, Po, R, Rb	IC, WB	Rb	Affinity purified	Poly	07-252
Anti-HP1 $\alpha$ , clone15.19s2	H, M, Vrt	ChIP, IC, IH, IP, WB	М	Purified	Mono	05-689
Anti-HP1γ, clone 42s2	H, M	ChIP, IH, WB	М	Purified	Mono	05-690
Anti-hTERT (CT), clone Y182, rabbit monoclonal	Н	FC, IC, IH(P), WB	Rb	Unpurified	Mono	MABE14
Anti-KLF4	H, M, R	IC	Rb	Affinity purified	Poly	AB4138
Anti-MeCP2	M, R	WB	Rb	Purified	Poly	07-013
Anti-MLL/HRX, CT., clone 9-12	Н, М	ChIP, IP, WB	М	Purified	Mono	05-765
Anti-MLL/HRX, NT., clone N4.4	Н, М	IP, WB	М	Purified	Mono	05-764
Anti-RNA polymerase II, clone CTD4H8	H, M, R, S. cerevisiae	ChIP-seq, WB	M	Purified	Mono	05-623
Anti-RNA Polymerase II, CTD, clone 8WG16	H, S. cerevisiae	IC, IP, WB	M	Ascites	Mono	05-952
Anti-Tip60	H, M	WB	Rb	Purified	Poly	07-038

For a complete offering of antibodies for chromatin-associated research, please visit: www.emdmillipore.com

### Secondary Antibodies for Chromatin-Associated 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	Н	ChIP-seq, IC, IF, IP, WB	М	IgG		05-724
Anti-SBP-tag, clone 20	Н	IC, WB	М	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	М	IF	Dk	IgG	FITC	AP192F
Donkey Anti-Mouse IgG, HRP conjugate, Species Adsorbed	М	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	Н	ELISA	Gt	IgK	HRP	AP502P
Goat Anti-Human IgA, α-Chain Specific Alkaline Phosphatase Conjugate	Н	EIA, IEP	Gt	IgA	Alk Phos	401132-1ML
Goat Anti-Human IgG, heavy and light chains	Н	IP	Gt	IgG		AB22-2ML
Goat Anti-Mouse IgG, (H+L) FITC Conjugated	М	IF	Gt	IgG	FITC	AP124F
Goat Anti-Mouse IgG, Alkaline Phosphatase conjugate	М	ELISA, WB	Gt	IgG	Alk Phos	AP124A
Goat Anti-Mouse IgG, F(ab')2, FITC conjugate	М	IF	Gt	IgG	FITC	AQ303F
Goat Anti-Mouse IgG, HRP conjugate	М	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	М	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		lgG1		70796-3
Mouse Anti-Human IgG, Fc, all subclasses, clone MK1A6	Н	ELISA, IF, HI, IH	М	lgG1		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

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#### Small Molecules for Chromatin-Associated 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, Streptomyces sp.	400051
Lactimidomycin	506291
Latrunculin A, Latrunculia magnifica	428021
Necrostatin-1	480065
PP1 Analog II, 1NM-PP1	529581
Tunicamycin, Streptomyces lysosuperficus	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

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